Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

November 11, 1957

NPVLA CONVENTION REPORT PAGE 7

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2. *Thiocyanogen* can be generated by the electrolysis of an aqueous solution of ammonium thiocyanate.
3. *Aromatic thiocyanates* can be prepared with ammonium thiocyanate with the aid of chloramides.
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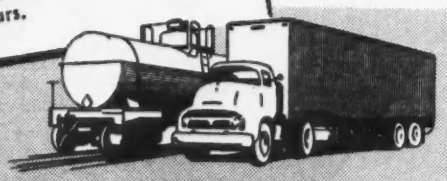

BULLETINS AVAILABLE

Baker Product Data Bulletins on ammonium thiocyanate provide valuable information about its many industrial applications. Bulletin 102 is a research report on ammonium thiocyanate as a corrosion inhibitor for nitrogen solutions. Bulletin 101 gives data on general properties and uses. We will be happy to send you either or both bulletins as well as price information.

PURITY BY THE TON — *for production use*

J.T.Baker CHEMICAL

J. T. Baker Chemical Co.

Phillipsburg, New Jersey

Oil, Paint and Drug Reporter

Vol. 172 No. 20 30 Church St., New York 7, N. Y. November 11, 1957

PRESIDENT OF CSC AFFILIATE: Howard L. Sanders, vice-president and treasurer of Commercials Solvents Corporation, named president of Northwest Nitro-Chemicals, Ltd., Medicine Hat, Alberta, the Canadian agricultural chemicals affiliate of CSC.

Drug Trade Is the Winner As Test Case Gives Producer Right to Set Retail Prices

The drug industry has come out on top in a test case to determine just how far a producer of pharmaceuticals can go in enforcing retail prices in areas without fair trade laws. A manufacturer can, says a court ruling, pick the retail outlets that will do what the producer suggests concerning minimum prices. A United States District judge has decided a case in favor of a drug producer and backs his decision by citing an earlier Supreme court ruling that gives a manufacturer a right to require a wholesaler or retailer to sell his product at an established price.

Judge Edward A. Tamm ruled last week in Federal District Court in Washington, D.C., that the government had failed to prove its charges of antitrust law violation against Parke, Davis & Co., Detroit, Mich.

Conspiracy Evidence Is Lacking

The judge said there was no evidence of conspiracy on the part of Parke-Davis and certain drug wholesalers to force cut-rate outlets to hold to suggested prices.

A wide interest had developed throughout the drug industry in the issues of the case because, in essence, they involved the right of a manufacturer to choose its customers in non-fair trade areas. The drug trade had considered the case an entering wedge by the Department of Justice to destroy restrictive sales and price maintenance in non-fair trade areas.

Judge Tamm dismissed the government's case but that did not entirely settle the issues involved. A civil antitrust case is pending against Parke-Davis, involving the same issues. That case had been filed simultaneously with the criminal case.

The criminal case grew out of the actions of Parke-Davis in cutting off supplies of its drugs to a cut-rate retail outlet in the District of Columbia, which had downgraded the price of Parke-Davis products to undersell other retailers in the Virginia-District of Columbia area.

Judge Tamm ruled that, under prior decisions of the Supreme Court of the United States, Parke-Davis is entitled to refuse to sell its products to any store which sells them at prices lower than those recommended. Also, he added, the company can refuse to sell to wholesalers if they failed to comply with its request not to sell to cut-rate stores.

Whether the Department of Justice will go ahead with this civil case in view of the setback in the criminal proceedings is un-

—Continued on page 78

HEADS UNION CARBIDE INT'L: George C. Wells, appointed president of Union Carbide International Company, division of Union Carbide Corporation, New York, succeeding Alex. MacKenzie who will reach retirement age this winter.

Latin American Trouble Looming For Drug Firms

American drug manufacturers can look for a severe shrinkage of their markets in the Western Hemisphere if Latin American governments decide to follow through on resolutions proposed last week at the fourth Pan-American Congress of Pharmacy and Biochemistry.

Ideas advanced at the parley ranged from outright repudiation of suggestions for uniformity in Latin American drug registration laws to complete abolition of patent rights in the field of medicine.

Some Lesser Proposals

In between were such lesser resolutions as making pharmacies the sole distributors of medicine; requiring drugs with substances subject to alteration or deterioration through age be marked with expiration dates; another asking that pharmaceutical specialties bear names that are related to their dominant active ingredient, or main pharmacological action.

Most of the debate at the conference centered about the suggestion that patent rights for medicines be eliminated. The proposal, approved by the pharmacy laws section of the congress, was later voted down by the full conference after a vigorous protest by the United States and an about-face by Argentina. One of the original sponsors of the idea, Argentina withdrew its support when the US came out with a strong dissent.

The week-long meeting at the Mayflower hotel, Washington, D. C., attended by close to a thousand delegates from the Western Hemisphere nations, also heard a discussion of the idea that an international clearing house be established to provide the technical services needed by Latin America in regulating the labeling and registration of drug products.

Dr. Sebastian Rodreguez, chairman of the cooperating committee of the Pan American Medical Confederation, argued strongly against "creation of a supranational agency to pass judgment on drugs." He said that such an agency is entirely unnecessary and impractical.

Doubts Surrender of Sovereignty

He doubted that the Latin American governments would surrender their own sovereignty in matters of this kind to an international body, and warned that technical progress in the individual countries would be slowed down if the need for qualified experts were suppressed, and their work performed by the central agency.

The greatest need, he argued, is uniformity of drug registration requirements as advocated by the Pan American Medical Confederation in 1955, and supported later by the Pan American Sanitary Organization.

Fred L. Soper, director of the Pan American Sanitary Bureau, operating arm of PASO, which currently is making a study of the needs of Latin America in the field of food and drug controls, sought to show the advantages of having a central clearing house and cited some of the benefits that might be expected to flow from it.

Olin Expansion Plans About the Same in '58

Olin Mathieson Chemical Corporation will continue to push its aluminum expansion. Otherwise, the company plans to spend about the same amount for capital improvements in 1958 as it has in 1957. This year, Olin expects to spend about $47 million.

Securities and Exchange Commission was notified last week of the company's plans, in connection with registration of $60 million of convertible subordinate debentures, due November 15, 1982, which will be offered for public sale.

Net proceeds from this financing will be added to the general funds of the company, SEC reported, and will be available for additional working capital required for expanded activities and for programmed capital expenditures within the fields of activity carried on by the company.

SEC said that based on present forecasts, the requirements for the aluminum program of the company in 1957 and 1958, in addition to $65 million being obtained from the private sale of 4 percent promissory notes due June 1, 1977, will amount to an estimated $47 million.

Of this amount, $20 million is expected to be generated internally by the aluminum program and related plans.

Stockholders of Olin Mathieson, at a special meeting last week, approved a proposal to increase the authorized shares of

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Adipic Acid Facility Is Placed on Stream

Monsanto Chemical Company, St. Louis, Mo., has completed a major expansion in production capacity for adipic acid, with the full-scale operation in Luling, La., of a new plant for large-volume production of the acid.

Monsanto said that the new facility makes the company the nation's largest producer of adipic acid for uses other than nylon manufacture.

Monsanto has been a major United States supplier of adipic acid since January, 1955, when it first offered the chemical in commercial quantities.

The new unit is integrated to raw materials facilities of the former Lion Oil Company in Luling, marking the first such integration of new production facilities to be completed since the September, 1955, merger of Monsanto and Lion.

The unit's location at the Barton plant in Luling, Monsanto said, indicates the advantages of the basic raw materials position which has resulted from the Monsanto-Lion merger.

Butadiene Styrene Works Of Borden Goes on Stream

A new butadiene styrene plant that will triple the capacity of its Illiopolis, Ill., manufacturing operations has been brought on stream by Borden Company, New York.

The new plant, which replaced outmoded facilities used at the Illinois location since the early 1950's, went into operation at the same time Borden announced the addition of eight glass-lined, 6,000-gallon, double-compartment chemical tankcars to its railway transportation fleet.

Output of the highly automated plant will be devoted primarily to the company's "Polyco 807," a low-odor emulsion used as a vehicle in latex paint, and "Polyco 2421," a binder used in pigmented clay coatings for high-grade paper.

Borden's Illiopolis operation is not limited to the manufacturer of butadiene styrene. A full line of Borden chemicals are produced there, including polyvinyl acetate, vinyl chloride and vinylidene chloride.

American Metal, Climax Are Thinking of a Merger

Directors of American Metal Company, Ltd., New York, and Climax Molybdenum Company, New York, have approved a plan for the consolidation and merger of the two companies with American Metal as the surviving corporation under the name, American Metal Climax, Inc.

Harold K. Hochschild would remain honorary chairman of the board. Arthur H. Bunker, who is now president of Climax, would become chairman of the board of the consolidated corporation. Walter Hochschild would be vice-chairman of the board and chairman of the executive committee and of the finance committee; and

—Continued on page 74

Wetting Agent Unit Started

Mona Industries, Inc., has begun construction of a 5,000 square foot addition to its main plant at Paterson, N. J. The annex will be used for increased production of sequestering agents, fatty acid amine condensates and sulfosuccinic acid types of wetting agents and penetrants.

Acrylate Output Is Begun

Celanese Corporation of America, New York, has started operation of a new 15 million-pound-a-year acrylate ester plant at Pampa, Tex. The company has begun tankcar shipments of the chemical from Pampa. The new facilities, which make Celanese the second major source of acrylate esters, supplement the firm's units in Pampa for production of acetic acid, acetic anhydride and vinyl acetate.

Sodium Hydride Offered In Quantity by Callery

Sodium hydride in production quantities is now available from Callery Chemical Company, Pittsburgh, Pa. This highly reactive solid is produced in mineral oil dispersions, making it possible to handle it safely in air, Callery reported.

Complete physical properties have been collected and are available in technical bulletin C-410, which also includes chemical properties, organic reactions, handling and storage procedures, and summarized suggestions for its use.

Nitrogen Future Rosy, But There Is Plenty Around

The future of nitrogen consumption still looks rosy, although the pace has slowed down a bit during the past year. This picture holds true particularly in the United States, Europe and Egypt.

This is what Aikman (London), Ltd., forecasts, in its annual report on the nitrogen industry. Since Aikman's last annual report, there have been many changes in the nitrogen picture, some of which were pointed out in the company's half-yearly report last June (OPD, 6/17/57).

Production has been reduced in the United States, since it has been impossible to dispose of this country's whopping capacity. Aikman believes that this situation is likely to go on for several years.

Aside from having capacity well in excess of needs, Aikman says, American producers have had to revise their production thinking downward because prices were no longer at an economic level, and some plants working at a loss had to shut down.

The cost-price squeeze was brought about by increased natural gas prices, as well as rising labor costs everywhere.

Aikman still feels capacity will be about 3,650,000 metric tons and, including byproduct output, about 3,825,000 metric tons in this country at the end of this year. Total production, however, is judged not likely to exceed 2.9 million metric tons, of which 900,000 metric tons will go to industrial and military purposes.

A soft spot in the world picture is the

—Continued on page 78

Sputnik II May Be Indication Soviets Have New Exotic Fuel

Sputnik II, the second Russian satellite, appears to have been propelled to its 1,056-mile height above the earth by some new exotic liquid fuel. Furthermore, there is more than a possibility that the Soviets used one of the borane compounds in launching the 1,120-pound dog-bearing moon. Shortly after the orbiting of the satellite was reported, a Polish scientist, Dr. Olgierd Wolczko, said that it was likely that the fuel used was a mixture of borax and hydrogen. According to Tass News Agency, the second artificial satellite represents the last stage of the carrier rocket, which houses containers carrying the dog and scientific instruments. Its maximum speed is 17,895 miles per hour, and it takes 103.7 minutes to go around the earth once.

The Russians have had a field day since the launching of their second moon, talking about "new sources of power" used to put it into space.

Claims of Soviet Scientists

Prof. Kirill P. Stanyukovich, reporting in the Russian trade union newspaper *Trud*, said that the Soviet Union had used a liquid super fuel, rather than nuclear energy, to launch Sputnik II.

Y. K. Federov, a geophysicist and corresponding member of the Soviet Academy of Science, wrote in *Literaturnaya Gazeta* that the increased weight and size of the second satellite (the first only weighed 184 pounds by comparison) could be attributed to "the solution of scientific and technical problems of jet propulsion."

Another Tass dispatch quoted Academician Dikushin, of Moscow, as saying that the increase in the satellite's size to provide for a large number of measuring and telemetering instruments, and even for an animal passenger, necessitated the development of new sources of power.

Paul M. Terlizzi, propellant expert in the research and development organization of Stauffer Chemical Company, earlier expressed the feeling that the Russians had developed a new breed of propellants to get the first Sputnik into space (OPD, 10/14/57).

Opinions of American scientists on the subject of power for the rocket varied from concession of a mild advance in fuel technology to claims that atomic power

—Continued on page 79

TEXTILE CHEMICALS MANAGER: Clarence C. Campbell, appointed manager of textile chemicals by Pennsylvania Industrial Chemical Corporation, Clairton, Pa.

Catalin, French Firm Will Swap Know-How

Catalin Corporation of America, wishing to get a stronger foothold in the international scene, will exchange know-how, technical information and formulas for chemical intermediates with Societe Francaise D'Organo-Synthese, of France.

Last week Catalin announced that it had completed a cross-licensing agreement with the French firm, which is one of several large technical and commercial chemical firms comprising Roger Bellon Enterprises, Neuilly-Paris, France.

Organo-Synthese is an important factor

—Continued on page 79

Syntex Denies Charge Of Antitrust Violations

Syntex, S. A., Mexican producer of steroid hormones, denies violations of the antitrust laws which were alleged in a civil complaint that has been filed by the United States Department of Justice (OPD, 11/4/57). Also named in the government suit were two affiliated companies—American Steroids, Inc., and Chemical Specialties Company, and

—Continued on page 70

Caustic Soda Barge Rate Will Be Raised by Hooker

Caustic soda barging freight rates will be hiked by Hooker Electrochemical Company, Niagara Falls, N. Y., effective January 1.

For shipments made from Niagara Falls to the New York area, the new rate will be $3.30 per liquid ton plus 3 percent transportation tax, applying to full barge lots of 2,500 liquid tons and on shipments of 500 tons in the New York area.

For shipments from Hooker's Montague, Mich., plant to the Chicago area, the new rate will be $2.24 per liquid ton plus 3 percent; to Lemont, Ill., $2.41 plus 3 percent, for 2,500 liquid ton barge lots.

When lighter deliveries are made, the prevailing lighterage transportation charges are for the account of the buyer.

The Week's Price Changes

Tallow, Greases, Cottonseed and Soybean Oils Priced Higher. Castor Beans, Mercury, Chicago Animal Proteins Decline.

Prices Advanced

Carnauba wax, Parnahyba, crude, 1c. per lb. (p. 72).
Cloves, Madagascar, a.r., ½c. per lb. (p. 60).
Cocoa butter, 9c. per lb. (p. 72).
Coconut oil, crude, ⅛c. per lb. (p. 72).
Copra, $2.50 per ton (p. 72).
Corn oil, crude, ⅛c. per lb. (p. 72).
Refd., ⅛c. per lb.
Cottonseed oil, crude, ⅜c. per lb. (p. 72).
Refd., ⅜c. per lb.
Egg albumin, flake, 1c. per lb. (p. 53).
Yolk, 6c. per lb.
Ginger, Cochin, ½c. per lb. (p. 60).
Jamaica, No. 3, 1c. per lb.
Greases, ⅛c. to ¼c. per lb. (p. 72).
Nutmegs, East Indian, 2c. per lb. (p. 60).
Soybean oil, ¼c. per lb. (p. 72).
Refd., ¼c. per lb.
Tallow, inedible, ⅛c. to ¼c. per lb. (p. 72).

Prices Reduced

Blood, dried, Chicago, 25c. per unit-ton (p. 49).
Cassia, Padang Vera, 'C', ¼c. per lb. (p. 60).
Korintji, 'C', ¼c. per lb.
Castor beans, $10 per ton (p. 72).
Oil, No. 1, Brazilian, ¼c. per lb.
Celeryseed, Indian, ½c. per lb. (p. 60).
Citronella oil, 8c. per lb. (p. 60).
Cuminseed, Iranian, 1c. per lb. (p. 60).
Ginger oil, $1.50 per lb. (p. 60).
Hoofmeal, Chicago, 25c. per unit-ton (p. 49).
Lard, cash, ⅛c. per lb. (p. 72).
Lauric acid, 3c. per lb. (p. 72).
Lemongrass oil, 10c. per lb. (p. 60).
Linseed meal, extracted, 50c. per ton (p. 72).
Expeller, $1 per ton.
Mace, Siauw No. 2, siftings, 5c. per lb. (p. 60).
Mercury, $2 per flk. (p. 42).
Molasses, New Orleans, ½c. per lb. (p. 47).
Patchouli, 25c. per lb. (p. 60).
Poppyseed, Dutch, ½c. per lb. (p. 60).
Tankage, 25c. per unit-ton (p. 49).
Thyme, red, 20c. per lb. (p. 60).
Tin, ⅞c. per lb. (p. 42).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

Nov. 8, 1957	Nov. 1, 1957	Nov. 9, 1956
109.55	109.89	109.48

'CBR' War Defenses Tighten

The Army Chemical Corps has come up with some new defenses against chemical, biological and radiological warfare, which, when feasible, it has made available to the Federal Civil Defense Administration for adaptation to civilian use. This fact was made known before last week's meeting of the Armed Forces Chemical Association, at the Delmonico hotel, New York, by Maj.-Gen. William M. Creasy, Chief Chemical Officer of the army. Speaking on recent developments in defense against "CBR" warfare, Gen. Creasy reported that there is now a method for detecting nerve gases in the air.

The Chemical Corps has also developed means for detecting and identifying disease germs more rapidly than heretofore, he said.

Another development, Gen. Creasy pointed out, is a material which can be used in masks and shelters to filter out air contaminated by chemical agents, germs and radioactive dust from the air.

Recently, he said, we announced the development of a new mask for troops which filters out the "CBR" agents. A mask using the same principle has been developed for the Federal Civil Defense Administration.

We are constantly working on the problem of immunization against diseases that might be used in biological warfare at-

—Continued on page 71

Methyl Butynol Products Are Made by Air Reduction

Two new derivatives of methyl butynol—methyl butenol and methyl hydroxy butanone—have been announced by Air Reduction Chemical Company, New York, a division of Air Reduction Company.

Methyl butynol will be commercially available early in 1958 when Air Reduction Chemical's new methyl butynol plant at Calvert City, Ky., goes on stream. The two new derivatives, methyl butenol and methyl hydroxy butanone, are now available in development quantities.

DAVISON PLANNING CHIEF: O. D. Myrick, jr., named director of its newly-organized development planning department by Davison Chemical Company Division of W. R. Grace & Co., Baltimore, Md.

Sargent to Gen'l Foods

John A. Sargent, former president of Diamond Alkali Company, Cleveland, Ohio, has been elected vice-president of finance of General Foods Corporation. He will join General Foods next Monday.

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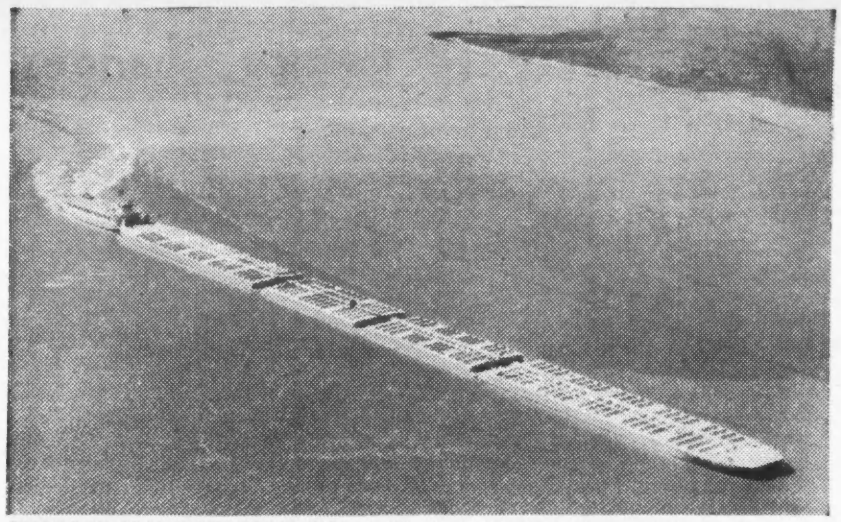

PETROCHEMICAL TOW MAKES FIRST TRIP: Shell Chemical Corporation's four-barge integrated tow, specially built for carrying petrochemicals, which last week arrived in Chicago on its maiden voyage. Including the first barges to be built with nickel-lined compartments for transporting high-purity chemicals, the tow carried glycerine and hexylene glycol (never before moved by barge) and other products from Shell's plant in Houston, Tex., to a Chicago terminal. Shell expects the round trip to take twenty-two days, which is high speed for this type of shipment.

Niobium Key to Design Problems Of Jets and Missiles, duPont Says

E. I. duPont de Nemours & Co. believes that it has in niobium metal and its alloys the answer to some of the critical design problems in jet engines, guided missiles and atomic reactors. The Wilmington, Del., chemical producer discloses that its pigments department, which has been a leader in the technical and commercial development of titanium and hyperpure silicon, has been turning out experimental quantities of pure niobium metal and niobium alloys. These materials, the company points out, possess the very desirable characteristic of high strength at high temperatures.

ANSUL VICE-PRESIDENT: Clifford C. Vander-Wall, elected vice-president in charge of manufacturing by Ansul Chemical Company, Marinette, Wis.

In a move to step up progress of the metal, duPont has entered into a joint development agreement with Thompson Products, Inc., of Cleveland, Ohio, for work in the fields of jet aircraft and missiles.

Forging Technics to Be Developed

Under the agreement, Thompson Products, a leading producer of jet engine parts and other aircraft components, will develop forging and other fabrication technics for the duPont system of alloys.

DuPont will supply niobium alloys to Thompson Products and will coordinate its research on alloys with the development program of Thompson Products. DuPont will also continue its application studies in other fields and technical work on processes for reducing raw ores and refining them to pure metal.

The metal was first identified early in the nineteenth century. This material was later found to be mixed with tantalum and when finally isolated was named niobium. Until recently the names of columbium and niobium were used interchangeably. Eight years ago, however, the International Union of Pure and Applied Chemistry settled on the name niobium.

DuPont interest in niobium stems from its work with titanium and silicon, two elements found widely in nature, but

—Continued on page 79

Morningstar Obtains Haberland's Facilities

Morningstar, Nicol, Inc., New York, has acquired from W. A. Scholten's Chemische Fabrieken, N. V. of Foxhol, Holland, in exchange for Morningstar common stock, the plant and facilities formerly owned and operated by Haberland Manufacturing Company, Clifton, N. J.

Morningstar, Nicol is presently the exclusive United States sales agents of Scholten's line of specialty potato starch and chemical products. The addition of the Haberland facilities to Morningstar's existing coast-to-coast chain of starch, dextrin, and adhesive plants will permit the

—Continued on page 74

Mobay Planning to Move Headquarters to Pittsburgh

Plans to move the headquarters of Mobay Chemical Company from St. Louis, Mo., to Pittsburgh, Pa., are afoot.

Mobay, which recently purchased a building in a Pittsburgh suburb has just signed a lease on another building in the Pittsburgh area. With the leasing of the new space, Mobay will establish its executive and general offices in Pittsburgh, thus completing a move begun in August when its engineering and technical staff relocated in the Pennsylvania city.

Gum Rosin, Turps Producers Shown Two Ways Out of Woods During Naval Stores Breakfast

Gum naval stores experts are agreed that the gum rosin and turpentine industry needs help. They are also agreed that it must help itself. But opinions vary as to how the industry must help itself in its struggle for a share of the market against such powerful and burgeoning competitors as wood distilled naval stores, sulfate turpentine and tall oil rosin. H. L. Meyer, president of Chematar Pine Products Corporation, New York, believes that removal of government price support from the gum naval stores industry would be a step in the right direction.

Mr. Meyer's opinion is contained in a paper he gave before the Naval Stores Breakfast, held in conjunction with last week's annual convention of the National Paint, Varnish and Lacquer Association in Washington, D. C.

Initial Results Might Hurt

Mr. Meyer said that removal of price props for the gum naval stores industry would undoubtedly lead to initial dislocations which are apt to hurt.

Nevertheless, he said, the best informed among the producers and processors are starting to wonder what is preferable: to let the present unsatisfactory state of affairs persist, or to have the law of supply and demand restored to the gum naval stores industry?

This, he believes, will bring the industry's house in order for the not-too-distant day when the inevitable reduction of wood naval stores output and limitations in tall oil availability will bring gum naval stores to the fore again.

Mr. Meyer warned that unless American gum rosin becomes competitive in the domestic and world markets, its use will diminish progressively.

We might again be in a position to do a proper marketing job for American gum rosin, he said. If it is done intelligently, it need not lead to the collapse of prices which is all too often and unnecessarily associated with the idea of withdrawal of government support.

A good number of rosin consumers may revert to the use of gum rosin, if it is marketed competently and at realistic values, Mr. Meyer contended.

"We may also see the day when wood naval stores producers, to conserve their dwindling stump supply, will purchase gum rosin on a large scale for captive use," he said.

Removal of government price props, Mr. Meyer predicted, could cause producers to

—Continued on page 78

DOW'S LOUISIANA MANAGER: J. R. Stein, appointed by Dow Chemical Company to be general manager of its Louisiana division facilities now under construction on a 1,700 acre tract about ten miles south of Baton Rouge.

Science Post in Washington Accepted by Killian of MIT

Dr. James R. Killian, jr., president of Massachusetts Institute of Technology, has accepted President Eisenhower's appointment to the newly-created post of special assistant to the President for science and technology.

The appointment was made public in the course of the President's nationwide address last week designed to reassure the nation on US developments in science and security.

At the same time, Mr. Eisenhower brushed aside the blocks hampering the Pentagon's missiles director, William M. Holaday, and delegated to him the full authority presently exercised by the Secretary of Defense.

The President said that Dr. Killian would be assisted by a staff comprised of the country's leading scientists and engineers in several fields and that both Dr. Killian and his staff would report directly to the President.

Dr. Killian, on his part, promised to employ "every means" he could summon to expedite fulfillment of his mission.

Chemical Men Keep Eye on Brazil, Tariffs

The chemical industry will have its eye on Brazil in January. At that time negotiations will start to see what concessions—including chemicals—will be made in the new Brazilian tariff.

The United States and other contracting nations to the General Agreement on Tariffs and Trade (GATT) will participate.

United States exporters interested in the matter will have an opportunity to present their views to the Interdepartmental Committee for Reciprocity Information at a public hearing December 5. Applications to be heard and briefs by persons desiring to testify must be filed by November 25.

The new Brazilian tariff provides for a change of nomenclature and substitutes a new schedule of ad valorem rates for the

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US Magnesium Plant Sold To Dow for $20.7 Million

Dow Chemical Company has bought the government's magnesium plant at Velasco, Tex., from General Services Administration for $20.7 million. The deal calls for Dow to pay one-third down and the balance in six years.

The installation, built in 1942 at a cost of $25.6 million, has been operated by Dow since then under a government lease. The plant originally had a capacity of 36,000 tons annually, which has been since raised to 45,000 tons.

Queried by OPD as to the possible anti-

—Continued on page 43

Titanium Metals Facility In Ohio Now Producing

Titanium Metals Corporation of America has announced initial production from its new Toronto, Ohio, plant said to be the world's first facility devoted exclusively to rolling and forging titanium.

Billets and large rounds are being shipped while engineering work continues on installation of sheet mills. The sheet mills are scheduled to be in operation early next year. TMCA is jointly owned by National Lead Company and Allegheny Ludlum Steel Corporation.

Aerosol Opportunities Ripe in Pet Field, Says duPont

The pet owners of the nation spend upwards of $16 million a year on pesticides, veterinary biologicals and animal care products, and an increasing amount of this could be spent on products in self-spraying aerosol containers, says E. I. duPont de Nemours & Co.

The Wilmington, Del., company has just completed a survey of the pet field and says there is plenty of room there for aerosol products.

The "Freon" products division, which made the survey, points out that there are 48 million cats and dogs in the country. The market, it adds, is bound to increase substantially during the next ten years, with the trend towards suburban living conducive to increased pet ownership and extension of the life span of cats and dogs through better care.

Sales of pesticides alone for external application to cats and dogs amounted to $3,580,000 in 1956, reflecting an average increase of more than 8 percent over the previous two years, duPont market analysts estimate.

Veterinary biologicals added another $4.3 million, while sales of pet medicaments like mange cures, shampoos and hair cleaners rang up an estimated $8,340,000 in sales.

The company's survey, designed to determine the current status and future potential of push-button pressurized pet sprays, many of which use duPont "Freon" propellent as a source of dispensing pressure, disclosed that about one out of three homes has either a pet dog or cat, or both.

About 55 percent of the pet owners

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Association Meetings

American Association of Textile Chemists and Colorists national convention, Statler hotel, Boston, Mass., November 14-16.

American Petroleum Institute, annual meeting, Conrad Hilton hotel, Palmer House and Congress hotel, Chicago, November 11-14.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, November 12.

American Association for the Advancement of Science, national meeting, Indianapolis, Ind., December 26-31.

American Drug Manufacturers Association, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., May 25-29.

American Institute of Chemical Engineers, annual meeting, Conrad Hilton hotel, Chicago, December 8-11.

American Pharmaceutical Manufacturers Association, combined midyear and eastern section meeting, Waldorf-Astoria hotel, New York, December 9-11; central section meeting, Edgewater Beach hotel, Chicago, February 10-12; western section meeting, Ambassador hotel, Los Angeles, February 17-18; annual meeting, Boca Raton Club, Boca Raton, Fla., April 14-16.

Association of American Soap and Glycerine Producers, annual convention, Waldorf-Astoria hotel, New York, January 22-24.

Chemical Bureau Alumni Association, fall get-together, Lexington hotel, New York, November 21.

Chemical Industries Exposition, Coliseum, New York, December 2-6.

Chemical Market Research Association, joint meeting with Commercial Chemical Development Association, Shamrock hotel, Houston, Tex., November 20-21.

Chemical Specialties Manufacturers Association, annual meeting, Hollywood Beach hotel, Hollywood Beach, Fla., December 9-11.

Commercial Chemical Development Association, joint meeting with Chemical Market Research Association, Shamrock hotel, Houston, Tex., November 20-21.

Drug, Chemical and Allied Trades section of New York Board of Trade, fall luncheon meeting, Waldorf - Astoria hotel, New York November 19; annual banquet, Waldorf-Astoria hotel, New York, March 6.

Essential Oil Association, annual meeting Savoy Plaza hotel, New York, January 10.

Federal Wholesale Druggists Association, midyear meeting, Statler hotel, New York, March 6-8.

Manufacturing Chemists' Association, semi-annual meeting and winter conference, Statler hotel, New York, November 26.

National Air Pollution Control Association, semi-annual technical conference, Fairmont hotel, San Francisco, November 18-19.

National Drug Trade Conference, annual meeting, Gramercy Park hotel, New York, December 2.

Society of Plastics Industry, vinyl film and sheeting conference, Commodore hotel, New York, December 10-11; reinforced plastics conference, Edgewater Beach hotel, Chicago, February 4-6.

Synthetic Organic Chemical Manufacturers Association annual meeting, Roosevelt hotel, New York, December 4.

Toilet Goods Association, scientific section, Waldorf-Astoria hotel, New York, December 9.

Hardt Sees Only Time in Way Of Science's Victory Over Disease

Dr. Robert A. Hardt says only one thing—time—stands in the way of medicine and pharmacy conquering all the diseases known to man. "Great new drug discoveries," says he, "are inevitable, in the light of the intensive research now being carried on in the laboratories of the world." Dr. Hardt, who is vice-president of Roche Laboratories, Nutley, N. J., offered this prophecy last week at the fourth Pan-American Congress of Pharmacy and Biochemistry held in Washington.

He made these remarks as he accepted the presidency of the congress, which was attended by 1,200 delegates and observers from thirty countries.

Why Gathering Is Important

In an address of welcome to the meeting, Dr. Hardt said:

"Why is our gathering of such significance at this time? Its importance derives from the fact that the pharmacists of the Americas are prime architects and partners in the creation and development of a peaceful and healthy world.

"To the extent that we here can strengthen our unity and professional understanding, we can anticipate proportionate advances in bettering the health and welfare of our peoples. It should be a source of pride for us to recognize this special potential of our skills and talents. I know that we shall forge new bonds of

—Continued on page 74

HEADS CHEMICAL ASS'N: Ivor R. Burden, executive vice-president of United-Hackathorn, Richmond, Calif., who has been elected president of the Western Agricultural Chemical Association.

Medical Survey Set Again by HIF-NORC

Another nationwide survey of medical costs and voluntary health insurance coverage is to be made by the Health Information Foundation and the National Opinion Research Center of the University of Chicago.

The new study will be, in fact, a resurvey of the HIF-NORC study of 1953, which provided basic health insurance data.

According to George Bugbee, HIF president, the 1958 survey will undoubtedly show the great improvement in voluntary health insurance coverage since 1953. "That improvement has been considerable," he said. "Since 1953 enrollment in voluntary health insurance has increased

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SOCMA Schedules Author To Talk at Annual Meeting

The Synthetic Organic Chemical Manufacturers Association will hear William H. Upson, author and lecturer, speak at its annual meeting and dinner December 4 in the Roosevelt hotel, New York.

Another feature of the meeting will be the election of officers and board members. The business meeting will be held at 4:30 p. m. Cocktails will be served at 6 p. m. and dinner an hour later. Mr. Upson's topic will be "You Don't Have to Be Crazy, or What It Takes to Be a Salesman."

Paint Industry Seen Facing Immediate, Unknown Challenges In This New Satellite Age

NPVLA Convention Report

The new age of man-made satellites which the world is entering will provide the paint industry among others with "immediate, if still unknown, challenges," according to the president of the National Paint, Varnish and Lacquer Association. Joseph F. Battley told NPVLA's seventieth anniversary meeting in Washington, D. C., last week that paint manufacturers "will be called upon to meet conditions still not designated, still not blueprinted." However, he said he is certain that a year from now the industry "will look back with wonder" on what it has done and "ahead with wonder" on what it is being called upon to do.

Joseph F. Battley

Mr. Battley said his predecessor as head of the paint association, the late Ernest T. Trigg, had a message for the industry which is still true today and for the future. Here is what Mr. Trigg had to say in 1947 upon stepping down from the NPVLA presidency:

Glamorization of Industry Suggested

"We must glorify and glamorize this industry of ours and do it directly to the public over the heads of all intermediate factors.

"We need to do this in an intelligent, consistent and sustained way to bring about a permanent appreciation of the products of this industry and thereby insure more regular and frequent use of our materials and prevent possible inroads of other industries into the fields which legitimately belong to us so long, but only so long, as our products continue to serve mankind better than others.

"That is a challenge we must accept. No markets are forever assured. They must be maintained. They must be expanded."

The United States must not permit the news of Russia's satellite achievements to serve as an excuse for "fiscal irresponsibility," Sen. Wallace F. Bennett of Utah warned.

"If we do this," he told NPVLA, "we may find that we have irreparably damaged the basic economic strength of the nation. And in the long run it is that economic strength which will provide the ultimate victory over world communism."

Sen. Bennett emphasized that if there is ever a choice between national survival

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CCDA-CMRA Texas Parley Speakers Slate Announced

Names of speakers and subjects for the November joint meeting of the Commercial Chemical Development Association and the Chemical Market Research Association, have been announced The meeting will be held at the Shamrock Hilton hotel, Houston, Tex., November 20 and 21.

On November 20, John D. McPherson, of Jefferson Chemical Company, will give an introductory talk. Dr. Harold Vagtborg, president of Southwest Research Institute, will discuss economic factors favoring expansion in Gulf Coast chemical industry.

E. H. Walet, jr., president of Jefferson Lake Sulphur Company, will give a forecast of sulfur and sulfur derivative production on the Gulf Coast in 1965.

H. G. Roebke, of Dow Chemical Company, will give a paper on production of chemicals from brine and sea water in 1965.

On November 21, K. A. Danskin, of Lubrizol Corporation, will preside. John G. McLean, of Continental Oil Company,

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Guar Gum Processing Starts at Karachi Unit

Habib-General, Ltd., a Pakistan company in which General Mills, Inc., Minneapolis, Minn., has a 60 percent interest, has begun guar gum processing at its new plant at Karachi, B. M. Hagan, Habib-General board chairman, has announced.

"General Mills has operated a large guar gum plant at Kenedy, Tex., since 1952, and this is our latest vigorous step in the vegetable gum field," Mr. Hagan said. "In Pakistan, we're right in the major guar bean growing areas, and we're now in position to serve world markets."

Production at Karachi is expected to double General Mills' output of guar gum, he added.

Guar gum production of the Karachi plant will be marketed principally in Europe, Australia, Asia and Africa. General Mills had been unable to serve these markets from its Kenedy plant because of unfavorable dollar exchange rates and import restrictions in many countries.

Methacrylonitrile Made In Eastman Pilot Facility

Pilot plant quantities of methacrylonitrile are now available from Eastman Chemical Products, Inc., Kingsport, Tenn., a subsidiary of Eastman Kodak Company. Derived from isobutyraldehyde by way of isobutyronitrile, the new Eastman product is being produced at Longview, Tex., by Kodak's Texas Eastman Company division.

In production of isobutyronitrile for approximately two years, Texas Eastman has installed a separate unit in which this insecticide intermediate is converted to methacrylonitrile. According to Eastman, its production to date indicates yields of exceptional purity.

Russians Have Their Sputniks, But Need Razor Blades

The Russians may have Sputniks whirling around in outer space, but they don't have a good razor blade in their drug stores.

That, says Thomas P. Whitney, foreign news analyst for the Associated Press, just about sums up the pharmaceutical industry in Russia.

Speaking before the National Wholesale Druggists' Association's annual meeting in Bal Harbour, Fla., last fortnight, Mr. Whitney analyzed pharmacy in Russia thus:

"The Soviet pharmaceutical industry in general is at least a decade behind that of the United States overall. Lacking the stimulus of a system of free enterprise and competition, with a total state monopoly on the production and distribution of pharmaceuticals, the Russians in general resort to copying foreign achievements after they have been put into production and use abroad.

"Pharmaceuticals are international by their very nature. We all know of the achievements of different nations in this field . . . Britain, Germany, France, the United States and the other scientifically advanced nations of the west. But I believe that I am correct when I say that so far Soviet Russia has not discovered any outstanding item of great significance in the pharmaceutical field and contributed it to the world.

"Now if one wants to talk about the field of merchandise covered by druggists in

—Continued on page 71

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66°	25% Oleum
Electrolyte	40% Oleum
98%	65% Oleum
99%	
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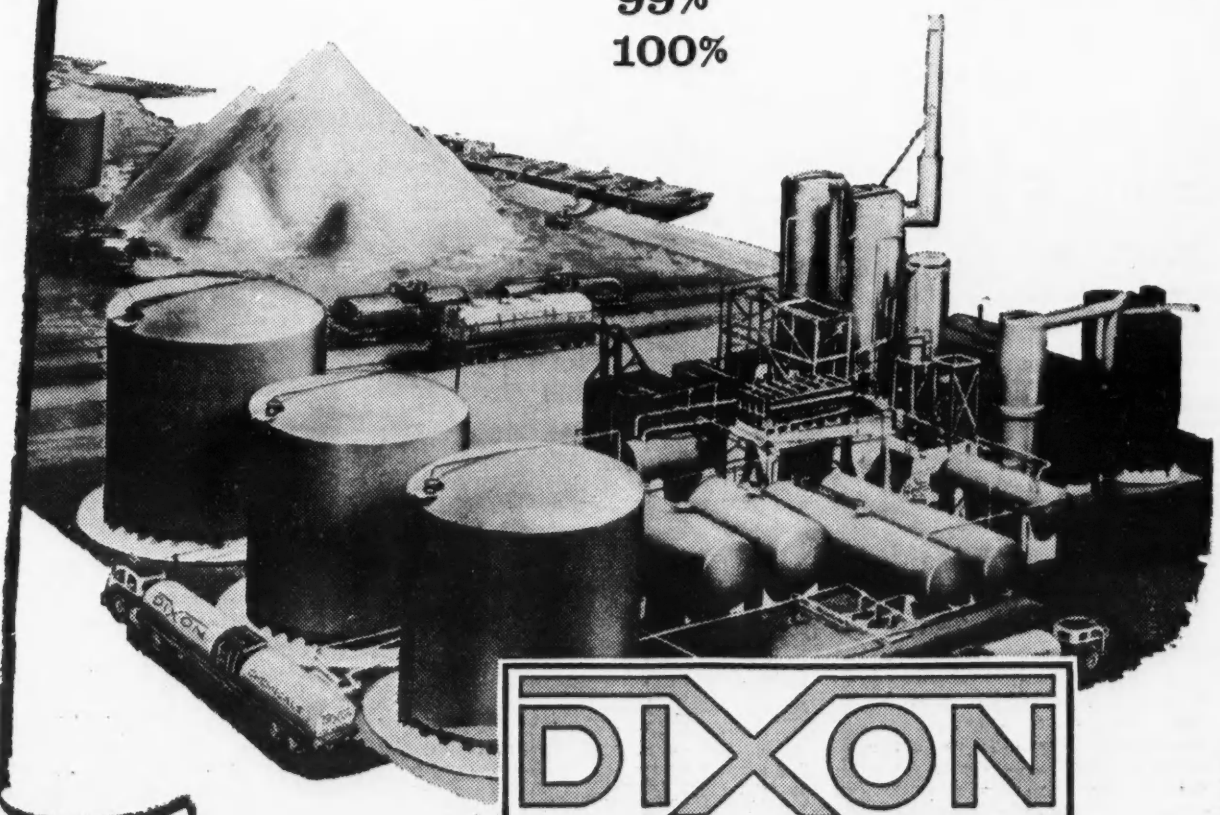

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CHEMICALS AND RELATED MATERIALS

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, November 8 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, ens ..... lb. 4.00 - 4.50
Abietic acid, coml., dms., c.l., works lb. .12 —
dms. l.c.l., ex whse ..... lb. .1490- —
Cryst., dms., c.l., works ..... lb. .06½- —
dms., l.c.l. works ..... lb. .07 - 07½
Acacia (see Arabic gum).
Acenaphthene, below 92.5 C. m.p., dms., works lb. .40 - —
Above 92.5 C. m.p., bbls., dms., lb. .41 - .50
Acetaldehyde, 99% dms., c.l., works, lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .30½- —
bbls., bgs. ton lots, frt. alld. lb. .31½- —
bbls. bgs. smaller lots, frt. alld lb. .34½- —
USP, bbls., 225-lb. dms. any quantity, lots lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid coml or redist, 28°c. bbls 100 lbs 4.80 - —
56%, bbls. ..... 100 lbs 8.25 - —
70%, bbls. ..... 100 lbs 9.95 - —
80%, bbls. ..... 100 lbs 10 45 - —
Acetic acid glacial, syn., CP, dms., dlvd 100 lbs 22.00 -23 00
tech., dms. c.l., dlvd .. 100 lbs 13 75 - —
dms., l.c.l., dlvd .... 100 lbs 14.25 - —
tanks, dlvd. ..... 100 lbs 10.00 - —
USP, chys. incl., dlvd 100 lbs 31 00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret dms., l.c.l., dlvd E. lb. .17½- —
tanks, dlvd E. ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms. t.c.l. dlvd. lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., t.c.l., dlvd lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib dms., t.c.l., dlvd lb. .83 - —
Acetone, CP, dms., c.l., dlvd .. lb. .11 - —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd ..... lb. .08½- —
Acetonitrile, dms., c.l., works lb. .45 - —
dms., l.c.l., works ..... lb. .47 - —
Acetophenetidin USP, bbls., works, frt. equald lb. 1.22 1.24
Acetophenone, cns., dms. ..... lb. 1.40 - 1.60
tech., dms., t.c.l., works .. lb. 75 - —
N-Acetyl-p-aminophenol, dms., frt. adjusted lb. 1.75 1.85
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .19 - —
cs., t.c.l., ex whse ..... lb. .24½- .30
Acetylsalicylic acid, USP, special, makers, primary distrib., bbls. 1,000-lb lots, point of shipt lb. .63½- —
USP, standard, fine, cryst. gran., (30-40 mesh) powd., (80 mesh), bbls., 1,000-lb. lots, same basis lb. .58½- —
Freight equald, shipt identical quantity over standard routes, from N. Y., Phila., Midland, Mich. Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret dms. c.l., frt. alld. E of Denver lb. .36 - —
non-ret dms., t.c.l., frt. alld E. of Denver lb. .35 - —
tanks, frt. alld E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39 - —
non-ret. dms., t.c.l., frt. alld. E. of Denver lb. .40 - —
tanks, frt. alld. E. of Denver lb. .37 - —
Acetyltri-2-ethylhexyl citrate, non-ret. dms., frt. alld lb. .60 - —

Acids

Acid quotations, formerly grouped under one heading, are now listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls ..... lb. .59 - .65
Acrolein, tech., dms., c.l., works lb. .47 - —
dms., l.c.l., works ..... lb. .47½- —
tanks, works ..... lb. .46 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .30 - —
dms., t.c.l., t.t.l., frt. equald.... lb. .31 - —
tanks, frt. equald ..... lb. .27 - —
Adeps lanae (see Lanolin).

Abies Siberica Oil—Ammonium Acetate

Adipic acid, bgs., c.l., dlvd ..... lb. .32¼- —
bgs., l.c.l., dlvd ..... lb. .35 - —
Adrenocorticotropic hormone (see ACTH).
Agar, USP, Kobe No. 1, strip, bls. lb. 1.90 - 2.00
powd., 30 mesh, fib. dms lb 2.50 - —
dl-Alanine, dms., works lb. 8.50 -11.00
Albumin blood, dark (see Blood, dried, soluble).
light, dms. lb. .65 .85
Egg, edible, cryst., powd., bbls. lb. 1.31 - 1.33
flake ..... lb. 1.27 - 1.29
tech., cryst., bbls ..... lb. 1.03 - 1.08

Alcohols

Alcohol quotations, formerly grouped under one heading, are now listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aldol, 95%, dms., works ..... lb. .23 - —
Denaturing grade, dms. ..... gal. 2.15 - —
Aldrin, tech. fib. dms., c.l., t.l., dlvd lb. .90 - —
fib. dms., t.c.l., dlvd. lb. .95 - 1.05
Aletris root, bgs. ..... lb. 1.75 - 1.85
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd, N. of Tenn and N.C., E of Miss. R. including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis. lb. 2.23 - —
Alkali blue toner, litho flushed, 125-lb bbls., same basis. lb 1.28 - —
Alkali blue dlvd prices ½c higher Ala., Fla. Ga., La. (Shreveport 1½c.), Miss., N.C., S.C., Tenn., Tex. (El Paso 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St Joseph, 1.6c higher; Pacific coast, Denver, Pueblo, Salt Lake City Wichita, frt. equald with Chicago
Allethrin, 90%, dms., frt. alld lb.28 80 -28 90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb 6.50 - 6.55
2½% dms. frt. alld lb .93 - 1.10

Abbreviations

Used in OPD Market Quotations

alld.	allowed
amorph.	amorphous
AMP	American melting point
anhyd.	anhydrous
AOAC	Association of Official Agricultural Chemists
a.p.a.	available phosphoric acid
approx.	approximately
artif.	artificial
ASTM	American Society for Testing Materials
Atl.	Atlantic
Be.	Baume
bbls.	barrels
bgs.	bags
bls.	bales
bots.	bottles
b.p.	boiling point
b.p.l.	bone phosphate of lime
b.r.	boiling range
bxs.	boxes
C.	centigrade
chys.	carboys
CD	completely denatured
c.i.f.	cost, insurance, freight
cks.	casks
c.l.	carlots
cns.	cans
coml.	commercial
conc.	concentrated
CP	chemically pure
cps.	centipoises
cryst.	crystalline
cs.	cases
ctns.	cartons
cyls.	cylinders
d-	dextro
dbl.	double
denat.	denatured
dest-dist	destructively—distilled
dl-	dextrolaevo
dist.	distilled
distr.	distributor
djns.	demijohns
dlvd.	delivered
dms.	drums
dom.	domestic
E.	east
e.p.	end point
equald.	equalized
exp.	expressed
Ext.	external
F.	fahrenheit
ferment.	fermentation
f.f.a.	free fatty acid
f.f.c.	free from chlorine
fib.	fiber
f.o.b.	free on board
f.p.a.	free of prussic acid
frt.	freight
gal.	gallon
gran.	granular
grd.	ground
i&a.	iron and aluminum
i.b.p.	initial boiling point
imp.	imported
incl.	included
indust.	industrial
kgs.	kegs
l-	laevo
lacq.	lacquer
lb.	pound
l.c.l.	less than carlots
l.t.l.	less truckload
liq.	liquid
mfrs.	manufacturers
m-	meta
m.a.p.	mixed aniline point
min.	minimum
m.p.	melting point
N-	nitrogen
n-	normal
nat.	natural
neut.	neutral
NF	National Formulary
NNR	New and Nonofficial Remedies
No.	number
nom.	nominal
o-	ortho
ord.	ordinary
oz.	ounce
p-	para
Pac.	Pacific
pf.	proof
phos.	phosphate
photo.	photographic
pkgs.	packages
powd.	powdered
precip.	precipitated
prod.	producer
pt.	point
pulv.	pulverized
purif.	purified
redist.	redistilled
refd.	refined
refy.	refinery
reg.	regular
resub.	resublimed
ret.	returnable
SD	specially denatured
s.d.	single distilled
S. E.	southeast
sec.	secondary
secs.	seconds
s.g.	specific gravity
shipt.	shipment
soln.	solution
s.u.	standard unit
syn.	synthetic
tanks.	railroad tankcars
tech.	technical
tert-	tertiary
t.l.	truck loads
t.w.	tank wagons
USP	U. S. Pharmacopoeia
vis.	viscosity
VM&P	varnish makers & painters
W.	west
whse.	warehouse
w. w.	water-white

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l., dlvd ..... lb. .32½- —
dms., l.c.l., dlvd. ..... lb. .33½- —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide, 55-lb. cbys., 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs., works. lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd. .. lb. .17½- —
dms., l.c.l., dlvd. ..... lb. .18½- —
tanks, dlvd ..... lb. .15 - —
Allyl isocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde).
Almond oil, nat., bitter, f.p.a., bots lb 3.00 3.75
NF, bots. ..... lb. 3.15 - 3.50
USP, sweet, cns., dms ..... lb. 1.25 - 1.50
Aloe, Cape cs. ..... lb .50 —
powd., cs ..... lb. .75 - —
Curacao, kgs. ..... lb .60 - —
powd., kgs ..... lb. .80 - —
Aloin, USP bbls., dms., kgs. lb 3.50 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpineol (see a-Terpineol).
Alphatocopherol (see a-Tocopherol).
Alum, ammonium, gran., bgs., works 100 lbs. 4.30 - —
lump, dms., works .... 100 lbs. 5.05 - —
powd., dms., works .... 100 lbs. 5.20 - —
USP, burnt, dms ..... lb. .20 - .21
hydrous, dms. lb. .07¾- .08
Alum potassium gran, bgs., works. 100 lbs 4.55 - —
lump, dms., works .... 100 lbs. 5.30 - —
powd., dms., works .....100 lbs. 5.45 - —
USP, burnt, dms ..... lb. .20 - .21
hydrous, dms ..... lb. .07¾ .08
Alum, potash-chrome, dms ..... lb. .17 —
Alumina calcined bgs, c.l., works. lb. .0475- —
bgs., l.c.l., works ..... lb. .0550- .0775
Aluminum acetate, basic soln., 24%, bbls, l.c.l., works lb. .14 - —
Aluminum chloride, coml., anhyd., dms c.l. works, frt. equald. lb. .15 - —
dms., l.c.l., works ..... lb. .15½- —
cryst. dms., c.l., works 100 lbs.16.00 —
dms., l.c.l., works, 100 lbs.16.50 - —
soln 32°, cbys., c.l., works lb .0445- —
cbys., l.c.l., works lb. .0520- .1200
tanks, works 100 lbs 3.45 - —
NF, gran., dms., works lb. .29 - 30
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .17¼- —
bgs., l.c.l., works ..... lb. .18¼- .20¼
Aluminum fluoride in fib dms. 0.35c. per lb higher
Aluminum formate, basic soln., dms., c.l., works lb. .12 —
dms., t.c.l., works lb. .12½- —
Aluminum hydrate heavy, bgs., c.l., frt. equald lb. .0335- —
bgs., 20,000-40,000 lb. lots, same basis lb. .0360- —
bgs., 2,000-20,000 lb. lots, same basis lb. .0460- —
bulk, c.l., same basis lb. .0310- —
Aluminum hydroxide, dried, USP XV, fib dms. works lb. .82½ —
fib dms., contract, works lb. 79½ —
Gel, pharmaceutical, 14-15% A1.O., fib dms., works lb. 22 —
fib dms., contract works lb. 21 - —
9-9½% A1.O., fib dms., works lb 19 - —
fib dms., contract works lb. .18 - —
Aluminum hydroxide, tech., powd. (See Aluminum hydrate)
Aluminum metal, 99%+, ingots, 10,000-lb. lots, frt. alld lb. .2810- —
pigs, 10,000-lb. lots, frt. alld lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined)
Aluminum paste lining, extra-fine, dms lb. .69½- —
Standard grade, dms lb. .47 - —
Aluminum powder, lining, extra-fine, dms lb. 1.11½- —
Standard grade, dms lb. .81½- —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb dm., 1½c per lb for 50-lb dm., 3c. per lb for 10 lb. can and 5c to 12c. per lb for smaller containers Deduct 1c per lb. for single shipment of 400 to 1,499 lbs., 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs and 4c. for 30,000 lbs. or more. Where destination is within the continental U S a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or over.
Aluminum resinate, precip., 2.1% t.t.l. dms lb. .33 - —
Aluminum stearate, dibasic, ctns., c.l lb. .39 - —
ctns., t.c.l ..... lb. .40 - 44
Monobasic, ctns., c.l ..... lb. .39 - —
ctns., t.c.l ..... lb. .40 - 44
Tribasic, ctns., c.l ..... lb. .39 —
ctns., t.c.l ..... lb. .40 44
Aluminum sulfate, coml., grd., bgs., c.l., works, frt equald ton 41.00 - —
grd., bulk c.l. same basis ton.40.00 - —
lump, bgs, c.l., same basis ton.44.00 - —
Iron-free, bgs., c.l., works, frt. equald 100 lbs 3.55 - —
bgs., t.c.l., works, frt. equald. 100 lbs 3.95 4.55
USP, gran., dms., works ..... lb. .29 - .30
powd., dms., works ..... lb. .36 - .37
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 - 7.50
p-Aminoacetanilide, frt alld. lb 1.57 —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 1.73
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.74 - 1.77
USP dms. 1,000-lb lots or more, works lb. 2.60 - —
dms., smaller lots, works lb. 2.65 2.73
Aminoethyl ethanolamine, dms., c.l., dlvd lb. .475 - —
dms., t.c.l., dlvd. ..... lb. .485 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., t.c.l., frt alld ..... lb. .45 - —
tanks, frt. alld ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots lb. 2.50 - —
p-Aminophenol, dms., frt. alld lb. 1.15 - —
Aminophylline, USP, 100-lb dms lb. 3.55 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.70 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. ton.84.00 - —
refrigeration tanks works, frt. equald. ton.86.50 - —
Aqueous, tanks, works, anhyd. basis ton.87.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal, gray, bgs., c.l., works, frt. equald 100 lbs. 6.25 - —
bgs., l.c.l., same basis 100 lbs. 9.25 - —
Ammoniac, sal., white (see Ammonium chloride, tech.).
Ammonium acetate, purif., dms lb. .41 - —

Ammonium Benzoate—Asphalt

Ammonium benzoate, USP, fib. dms., ton lots, works lb. 1.00 - —
fib. dms. 1,000-lb lots, works, lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works ton.319.50 - —
dms., ton lots, ex whse ton.397.00 - —
dms., smaller lots, ex whse ton.402.00 - —
Ammonium bicarbonate, dom., dms. c.l., works 100 lbs 7.00 - —
dms., l.c.l., works 100 lbs 9.00 - —
Ammonium bichromate dms. works, lb. .42 .43
Ammonium bifluoride, dms. dlvd lb. .2145- .2245
Ammonium bromide NF gran. bbls. lb. .45 - —
Powdered ammonium bromide 10c per lb higher
Ammonium carbonate USP, lump, dms., c.l lb. .15½- —
Ammonium chloride, tech., fine gran., bgs., c.l., works 100 lbs 5.75 —
l.c.l., works 100 lbs 7.75 8.20
USP, gran., fib. dms lb. .17¼- —
Ammonium citrate, dibasic, bbls lb .77 —
Ammonium dichromate (see Ammonium bichromate).
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., dms.lb. .45 - —
Ammonium hydroxide (see Ammonia aqueous)
Ammonium hypophosphate, NF, 5-lb. bots lb. 2.50 - —
Ammonium iodide, NF dms. bots. lb 4.26 4.38

Ammonium linoleate, 60%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., fib. dms., 15,000 lbs., works lb. 1.22 - —
fib. dms., 2,000-lb. contracts, works lb. 1.23 - —
single fib. dm. works lb. 1.24 - —
Ammonium nitrate, dom. fertilizer grade, 33.5% N, bgs., western works, frt. equald, base price ton.64.00 - —
USP, gran., bbls., dms. lb. .17¼- —
Ammonium nitrate, imp. Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $8 ton base price ton.68.00 - —
August discount ton 5.00 - —
western bgs., c.l., f.o.b. cars, Los Angeles ton.79.69 - —
with dolomite, 20.5% N, bgs., Hopewell, Va. ton.49.75 - —
Ammonium oxalate, fine gran., dms. lb. .28½- .30½
Ammonium pentaborate, gran., bgs., c.l., works ton.187.50 - —
bgs., ton lots, ex whse ton.273.50 - —
bgs., smaller lots, ex whse ton.278.50 - —
Ammonium pentaborate powder $10 per ton higher
Ammonium persulfate, tech., dms., 10-ton lots or more works, lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —

Ammonium phosphate, dibasic, NF, V bbls., dms. lb. .46 - —
Tech, bgs., c.l., works, frt. equald, lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Ammonium silicofluoride, dms., works lb. .11¾- .13¼
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- —
Ammonium sulfate, coke-oven, bulk, producing ovens, base price ton.32.00 - —
purif. dms. works lb .10 - .10½
Syn., bulk, c.l., works ton.34.00 - —
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis ton.160.00 - —
Ammonium sulfocyanide, tech (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., dms., c.l. works lb .20 - —
dms., l.c.l., works lb .22 - .26
Ammonium thioglycollate, comi., chys., 100% basis lb. 1.35 - 1.65
Highly purif., chys. 100% basis lb 1.70 - 1.96
d-Amphetamine hydrochloride, dibasic bots lb.18.00 -28.00
dl-Amphetamine hydrochloride, dibasic bots lb 4.50 - 6.00
d-Amphetamine hydrochloride, monobasic, bots lb.18.00 -28.00
dl Amphetamine phosphate bots lb 4.50 - 6.00
d-Amphetamine phosphate, fib dms., 100-lb. lots lb.14.50 - —
d-Amphetamine sulfate, fib. dms., 100-lbs. lots lb.16.50 - —
dl-Amphetamine sulfate, fib. dms., lb 4.50 - 6.00

Amyl acetate, ex fusel oil, tech., dist. from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .19½- .20
tanks, same basis lb. .16 - .16¼
Ex pentane, reg. dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd lb. .20 - —
tanks, dlvd lb. .16½- —
Amyl acetate, syn., oxo process, dms., c.l., dlvd lb. .20¼- —
dms., l.c.l., dlvd lb. .21¼- —
tanks, dlvd. lb. .17¾- —
Tech., dms., c.l., dlvd lb. .17 - —
dms., l.c.l., dlvd lb. .18 - —
tanks, dlvd lb. .14½- —
Amyl alcohol, ex fusel oil (see Fusel oil, refd.).
Amyl alcohol, ferment., refd., 128°-132°C., dms., l.c.l., dlvd lb. .43 - —
refd., ACS grade, dms., l.c.l., dlvd lb. .45 - —
Ex-pentane, mixed amyls, dms., c.l., frt. alld lb. .18½- —
dms., l.c.l. frt. alld lb. .19½- —
tanks, frt. alld lb. .16 —
primary, dms., c.l., frt. alld. lb. .19¾ —
dms., l.c.l., frt. alld lb. .20¾- —
tanks, frt. alld lb. .17¾- —
sec-synthetic, dms., c.l., works, frt alld lb. .19 - —
dms., l.c.l., works lb. .20 - —
tanks, works lb. .17 - —
tert-synthetic, dms. c.l., frt. alld E lb. .18½- —
dms., l.c.l., frt. alld E lb. .19½- —
tanks, frt. alld E lb. .16 —
Amyl alcohol, l-pentanol (syn normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .42½- —
tanks works lb. .39½- —
2-Pentanol, dms., c.l., works lb. .65 —
dms., l.c.l., works lb 70 —
tanks works lb 60 —
Amyl cinnamic aldehyde, dms lb. 1.75 - 2.20
Amyl salicylate, cns. dms lb. .82 1.10
o-tert-Amyl phenol dms. c.l., works. lb. .49½ —
dms., l.c.l., works lb. .50½- —
tanks, works lb. .47 —
p-tert-Amyl phenol, dms., c.l. works. lb. .26¾- —
dms., l.c.l., works lb. .27¾- —
Amyl n-butyrate, dms. lb. 1.00 1.25
Amyris oil, dms. lb. 1.35 - 1.55
Anethol, cns., dms lb. 1.45 - —
Tech., dms lb. 1.35 - —
Angelica root, dom., bls lb .60 .65
Angelica root oil, bots. lb.120.00 -130.00
Angelica seed oil, bots lb 120.00 -130.00
Aniline, dms., c.l., frt. alld lb .22 —
dms., l.c.l., frt. alld lb. .23 - —
tanks, frt. alld lb. 20 - —
tankwagons, min 2,000 gals lb. 20½- —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., truckloads, 20,000 lbs. min., frt. alld. lb. .33 - —
dms., l.c.l. same basis lb. .35 —
Anise oil, USP, dms. lb. 2.50 - 4.00
Anise seeds, Mexican, bgs. lb. .17½- —
Spanish, bgs. lb. .17½- —
Syrian, bgs lb. .17½- —
Anisic aldehyde, bots, dms. lb. 1.85 - 2.15
o-Anisidine, dms., c.l., frt. alld lb. .80 —
dms., l.c.l., same basis lb. .82 - —
tanks same basis lb. 78 - —
p-Anisidine, dms., works lb. .97 - —
Annatto seed, Ecuador/Dominican, whole, bgs lb. .19½- .20
Indian lb. .16 - —
Anthracene, 90-95%, bbls., ton-lots, works lb. .83 - —
bbls., smaller lots, works lb. .95 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt. alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. .91 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines lb. .33 - —
cs., c.l., mines lb. .33½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .27 - —
bgs., l.c.l., frt. alld. lb. .28½- —
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots., dlvd. lb. .23 - —
smaller lots, dlvd. lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., dms lb. .69½- .74½
USP, powd., dms. lb. .74½- .75½
Antipyrine, NF, 200-lb. bbls. lb. 3.50 - —
Apomorphine hydrochloride USP 25-oz. lots oz.35.60 - —
Apricot kernel oil USP, dms lb. .75 - .90
Arabic gum, amber, sorts, bgs. lb. .21 - .23
USP, powd., bbls. lb. .27 - .29
Areca nuts powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins oz. 4.50 - 6.00
l-Arginine monohydrochloride, dms., 1 kilo lots kilo.74.80 - —
Arnica flowers (true Montana), bls. lb. 1.40 - 1.50
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .031 - —
Arsenic trioxide, USP, dms lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07½
Arsenous acid, tech (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide)
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls lb. 2.85 - —
Maroon shade bbls lb. 3.70 - —
Asafetida gum, cns. lb. .40 - —
Powd., bbls. dms lb. .85 - —
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude,
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.44.00 - —
7TF, c.l. (30 tons), mines ton.44.00 - —

Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.

Ascorbic acid, USP, dms., 25-100 kilo lots kilo.10.00 - —
dms., 10-kilo lots kilo.10.35 - —
dms., 5-kilo lots kilo.10.75 - —
bots., 1-kilo lots kilo.12.00 - —
bots., 500-gram bots kilo.12.50 - —
Ash black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l. mines ton.40.00 —
ex-whse, N. Y., N. J. ton.83.56 -86.50
seconds, 300°-390° F. fusing pt., bgs., c.l. mines ton.35.00 —
select, 350° F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295° F. fusing pt., bgs. c.l. mines ton.40.00 - —

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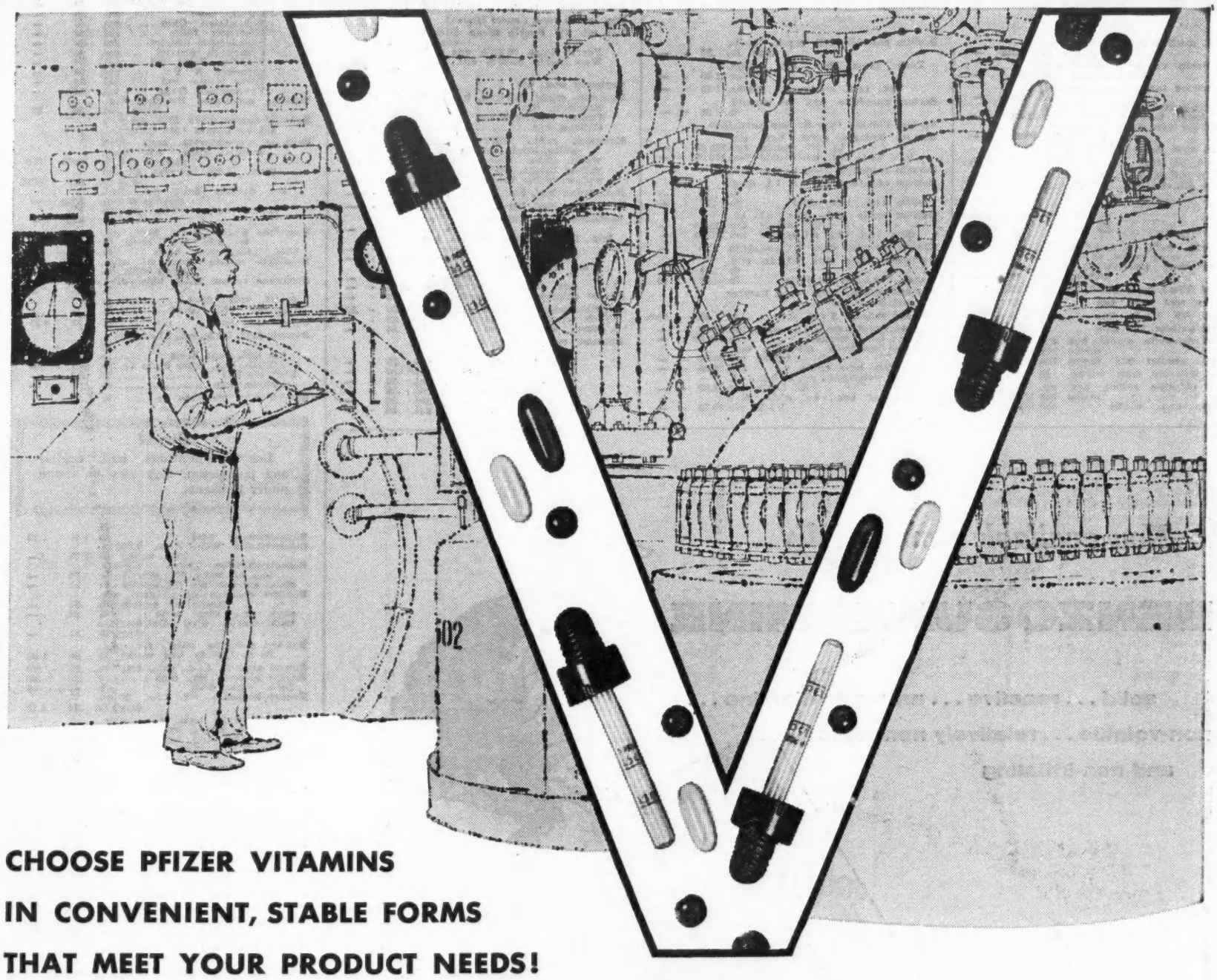

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VITAMIN B_1—Because thiamine mononitrate has become increasingly popular for use in all types of dry formulations, Pfizer now offers you three convenient U.S.P. forms: Fine Granular, Regular Powder and Micro Powder. You can order Pfizer Thiamine Hydrochloride as the regular powder for use in both dry and liquid preparations, and as the AA grade powder for use in parenterals.

RIBOFLAVIN—Produced by fermentation, Pfizer Riboflavin U.S.P. is noted for two important qualities: uniform color batch after batch, and freedom from odor.

ASCORBIC ACID—The complete Pfizer Vitamin C line includes sodium ascorbate, calcium ascorbate, ascorbyl palmitate, ascorbic acid in six granulations and ascorbic acid coated —this newest addition to the Pfizer "C" line is a white granular product containing approximately 1% ethyl cellulose as the coating agent.

ORDER THESE OTHER QUALITY CONTROLLED PFIZER VITAMINS: Calcium Pantothenate U.S.P., Niacinamide U.S.P., Pyridoxine Hydrochloride U.S.P., Cobalamin Concentrate N.F., Solution of Cobalamin Concentrate, Vitamin B_{12} Crystalline U.S.P., Vitamin B_{12} Crystalline U.S.P. 0.1% trituration with mannitol or dicalcium phosphate, and 0.1% Cyanocobalamin in gelatin.

CHAS. PFIZER & CO., INC.
Chemical Sales Division
630 Flushing Ave., Brooklyn 6, N. Y.
Branch Offices: Chicago, Ill.; San Francisco, Calif.; Vernon, Calif.; Atlanta, Ga.; Dallas, Tex.

for your combination products:

L-LYSINE
—Through its leadership in fermentation chemistry, Pfizer now offers pharmaceutical manufacturers the essential nutrient L-lysine in commercial quantities. A unique fermentation process assures that only the biologically active L-isomer is produced.

MINERAL CARRIERS
—Why not give your vitamin-mineral products greater sales appeal by using better tolerated, readily absorbed Pfizer Gluconates and Citrates as metal carriers.

PIONEER AND LEADING MANUFACTURER OF VITAMINS Pfizer

Asphalt, manjak, No. 10, crude, dms., works lb. .06¼ - —
Petroleum, cut-back, tanks, tankwagon, refy gal. .09 - —
emulsion tanks tankwagon refy. gal. .09½ - —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration, tanks, tankwagon refy ton.20.00 - —
Aspirin (see Acetylsalicylic Acid).
Atropine, NF tins ..... oz. 4.00 4.50
Atropine sulfate, USP, bots. ..... oz. 2.35 - 2.45
Avacado oil, cns. ..... lb. 3.00 Nom.

B

Bacitracin, bulk, 1,000,000,000 or more units 50,000 units. .65 - —
less than 1,000,000,000 units. 50,000 units .70 - —
Balm of Gilead, buds, dried, bgs. lb. 1.25 - 1.35
Barberry root bark bgs ..... lb. .28 .30
Barbital, NF, 100-lb dms ..... lb 4.50 - —
Barbital sodium, NF dms ..... lb 4.75 - —
Barium carbonate precip., bgs. c.l., works ton.106.50 - —
bgs. smaller lots works ton.121.50 - —
Barium chlorate, dms. works lb. .32 - .41
Barium chloride, anhyd., bgs., c.l., works ton.176.00 - —
bgs., l.c.l., works ..... ton.191.00 - —
Barium chloride, NF, cryst., 100-lb. dms. lb. .22 - —
Tech., cryst., bgs. c.l., works, 100 lbs. 7.00 - —
bgs., l.c.l., works ..... 100 lbs. 7.75 - —
Barium chromate, bgs. frt. equald. lb. .35 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l. frt equald ton.208.00 - —
bgs. l.c.l., l.t.l., frt. equald ton.218.00 - —
Barium monoxide (see Barium oxide).
Barium nitrate bbls. c.l. t.l. dlvd. lb. .16 - —
bbls., l.c.l., l.t.l., dlvd ..... lb. .17 - —
Barium oxide grd. dms., c.l., t.l., frt. equald ton.275.00 - —
dms. l.c.l. l.t.l. frt equald ton.285.00 - —
Barium peroxide dms. frt. equald. lb. .20 - —
Barium stearate ctns. c.l. frt. alld. lb. .41 - —
ctns., l.c.l. same basis ..... lb. .42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).
Barium sulfate X-ray dms ..... lb. .15 - .15½
Barium sulfide dms., c.l., works ton.95.00 - —
dms., l.c.l. works ton.105.00 - —
Barytes, southern off-color, bgs., mines ton.25.00 - —
95-75%, bgs. mines ton.25.00 - —
white, water-grd., paper bgs., c.l., St. Louis ton.55.00 - —
paper bgs., ex whse, New York ton.79.85 - —
Battery acid, cbys., c.l., works, E. 100 lbs. 2.35 - —
cbys., l.c.l., works, E ..... 100 lbs. 2.65 - 2.45
Bauxite, bulk, mines ..... ton. 7.00 -10.00
Bay leaves (see Laurel leaves).
Bay oil, NF, Puerto Rican, 50-55%, cns. lb. 2.10 - 3.00
Puerto Rican, 55-60%, cns ..... lb. 2.50 - 3.00
West Indian, 50-55%, cns., dms., lb. 1.93 - 2.40
Bayberry wax, bgs ..... lb. .45 - .47
Beeswax, crude, African, bgs..... lb. .64 - .66
Brazilian, bgs ..... lb. .66 - .68
Central American bgs ..... lb. .65 - .67
Chilean, bgs ..... lb. .67 - .69
Beeswax, refd., USP, bleached, white, bricks, 100-lb. ctns. lb. .77 - .80
white, slabs, 100-lb. ctns ..... lb. .76 - .79
yellow, bricks, 100-lb. ctns ..... lb. .69 - .71
yellow, slabs, 100-lb. ctns ..... lb. .68 - .70
Belladonna leaf, bls ..... lb. .32 - —
Belladonna root, bls ..... lb. .30 - —
Bentonite, dom. 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp., Italian, white, high gel., bgs., 5-ton lots, ex whse ton.84.00 - —
bgs., 1-ton lots, ex whse. ton.87.00 - —
low gel. bgs 5-ton lots, ex whse ton.82.35 - —
bgs. 1-ton lots ex whse. ton.85.35 - —
Benzal chloride chys. works ..... lb. .44 - —
Benzaldehyde, NF, dms. ..... lb. .80 - .86
Tech., chys. dms., t.l ..... lb. .43 - —
chys., smaller lots ..... lb. .44 - —
Benzene, coaltar pure or nitration, tanks, works:—
Bethlehem, Pa ..... gal. .36 - —
Birmingham district..... gal. .36 - —
Chicago district ..... gal. .36 - —
Cleveland district..... gal. .36 - —
Geneva, Utah ..... gal. .36 - —
Johnstown, Pa ..... gal. .36 - —
Benzene, coaltar, pure or nitration, tanks, works:—
Lackawanna, N. Y..... gal. .36 - —
Lone Star, Tex ..... gal. .36 - —
Lorain, Ohio ..... gal. .36 - —
Middletown, Ohio..... gal. .36 - —
Minnequa, Colo ..... gal. .36 - —
Philadelphia district..... gal. .36 - —
Pittsburgh district ..... gal. .36 - —
Sparrows Point, Md ..... gal. .36 - —
Syracuse, N. Y ..... gal. .36 - —
Terre Haute Ind ..... gal. .36 - —
Youngstown, Ohio ..... gal. .36 - —
Benzene, petroleum Houston, Tex., tanks gal. .36 .38
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech. high gamma, dms., c.l., dlvd. gamma unit-lb. .0075 .008
dms. l.c.l. works gamma unit-lb. .009 .0095
low gamma, dms. c.l., dlvd. gamma unit-lb. .0075 -
dms. l.c.l. works gamma unit-lb. 009 -
Benzidine hydrochloride, bbls. c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., l.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., frt. alld., 100% basis lb 1.21 - —
Benzidine yellow AAA bbls. dlvd. lb. 2.20 - —
AAOT, bbls. dlvd ..... lb 2.45 - —
Lightfast bbls., dlvd ..... lb 3.25 - —
Benzocaine dms ..... lb 3.48 3.50
Benzoic acid, tech., c.l., t.l., frt. alld. lb .37 - —
ton lots, same basis ..... lb. .41 - —
1,000-lb. lots, same basis ..... lb. .43 - —
USP, ton lots ..... lb. .48 - —
1,000-lb. lots ..... lb. .50 - —
Benzoin gum Sumatra cs ..... lb 33 -

Benzol

Benzol quotations, both coaltar and petroleum, may now be found under Benzene.

Benzophenone dms ..... lb. 1.40 1.70
Benzotriazole, tech. dms., 1,000-lb. lots, works lb. 2.25 - —
Benzotrichloride, cbys. 1,000-lb. lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys. dms., c.l., works, frt equald lb. .22 - —
cbys., l.c.l. same basis lb. .23 - —
tank trucks dlvd Metropolitan area lb. .21 - —
Benzoyl peroxide, purif., fib dms., 50 to 1,000-lb. lots, works lb. .98 1.08
Benzyl acetate, f.f.c., cns., dms lb. .65 - .79
Benzyl alcohol, NF, dms ..... lb. .65 - .80
Tech., dms. dlvd. lb. .47½ - .49
Benzyl benzoate, NF, f.f.c., 500-lb. dms lb. .75 - 1.13
Benzyl chloride, tech., cbys., dms., c.l. works, frt. equald lb. .22½ - .25½
cbys. dms. l.c.l. same basis lb. .23½ - .25½
tank trucks, dlvd Metropolitan area lb. .21 -

A 2½c. differential is quoted on benzyl chloride in 5-gal cbys. In steel dms. prices are ½c. lower

Benzyl cinnamate, cns ..... lb. 3.30 - 3.60
Benzyl dimethylamine, dms., works. lb 2.25 -
Benzyl formate, cns ..... lb. 1.85 - 2.10
Benzyl isoeugenol, cns. ..... lb 9.85 -
Benzyl propionate, bots. ..... lb 1.35 - 1.65
Benzyl salicylate, bots. ..... lb. 1.60 - 1.85
Benzylidine acetone, bots ..... lb. 1.75 - 1.80
Benzylidine chloride, (see Benzal chloride).
Berberine bisulfate, cns. ..... lb.35.00 -36.25
Berberine hydrochloride, bots... lb.35.00 -36.25
Bergamot oil, nat. NF, Italian cns. lb. .12.50 -13.25
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaine, anhyd., 10,000-lb. lots, frt. alld lb. 3.00 - —
Betaine hydrochloride, 5,000-lb. lots, frt. alld lb. 1.60 - —
Betaine monohydrate, 10,000-lb. lots, frt. alld lb. 2.60 - —
Betagammapicoline (see b,g-Picoline).
Betamethylnaphthalene (see b-Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin, cryst., bots ..... gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns. ..... lb. 1.50 - 1.90
Rectified, cns ..... lb. 1.75 - 1.85
Bismuth chloride, jars ..... lb. 5.11 - —
Bismuth hydroxide dms. ..... lb. 4.65 - —
Bismuth metal, bxs., ton lots ... lb. 2.25 - —
Bismuth nitrate, cryst., dms..... lb. 2.10 - 2.17
Bismuth oxide, anhyd., dms..... lb. 4.47 - 5.05
Bismuth oxychloride, dms. ..... lb. 4.37 - 4.42
Bismuth subcarbonate, USP, dms. lb. 3.20 - —
Bismuth subgallate, NF, fib. dms lb. 3.15 - —
Bismuth subiodide, fib. dms ..... lb. 5.37 - —
Bismuth subnitrate, NF, dms.... lb. 2.65 - —
Bismuth subsalicylate, USP, dms. lb. 3.50 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A bgs., c.l., t.l., frt. alld. lb. .30 - —
bgs., l.c.l., same basis ..... lb. .31 - —
Blackberry root bark, bls..... lb. .50 - .55
Black haw root bark, bls ..... lb. .63 - .65
Black haw tree bark, bls. ..... lb. .45 - .50

Black Pigments

Black pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works..ton.115.00 - —
bgs., l.c.l., works ..... ton.125.00 - —
bgs., l.c.l., New York whse..ton.165.00 - —
Blood, dried, 16-16½% ammonia, unit-ton. 5.00 - —
high-grade, unground, 16-17% ammonia, bgs., Chicago, unit-ton. 5.75 - —
Blood, dried, soluble, bgs., c.l lb. .13 - .14
bgs., t.l ..... lb. .15 - .17
bgs., l.t.l ..... lb. .15½ - .35½
Bloodroot, bls. ..... lb. .48 - .50

Now available commercially . . .

BENZOGUANAMINE

solid . . . reactive . . . aromatic diamine . . .

non-volatile . . . relatively non-toxic

and non-irritating

TENNESSEE announces benzoguanamine . . . a member of the triazine family with characteristics that offer outstanding benefits in product improvement and lower costs.

Comparison to melamine: A substituted melamine with two reactive amino groups plus a non-reactive phenyl group per molecule, as shown in structure above. (Melamine has three reactive amino groups.) Reacts with formaldehyde and alcohols to form a wide variety of triazine resins. Can be processed with the same equipment and techniques as used for melamine. Compared to melamine, resins based on benzoguanamine have improved compatability, water resistance, color retention, initial gloss, and alkali resistance.

Applications: Formulation of resins for industrial coatings, molding compounds, adhesives, paper products, and textile finishes. As a chemical intermediate, benzoguanamine contains two reactive amino groups attached to a stable triazine ring.

Physical properties: Molecular weight 187.2 . . . Freezing point 227°C . . . Full details in Technical Data Bulletin; free on request.

Available in commercial quantities. Experimental samples will be forwarded when requested on company letterhead.

TENNESSEE PRODUCTS & CHEMICAL Corporation
NASHVILLE, TENNESSEE

A DIVISION OF THE CHEMICAL, PAINT AND METALLURGICAL DEPARTMENT OF MERRITT-CHAPMAN AND SCOTT CORPORATION

Blue Pigments

Blue pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes)
Blue vitriol (see Copper sulfate)
Bois de rose oil, Brazilian, dms. lb. 3.40 - 3.85
Peruvian, dms. lb. 2.90 - 3.50
BON acid maroons pure bbls lb 1.75 —
Resinated bbls lb 1.50 —
Bone black, dms., t.c.l., frt. alld lb. .17 .23¼
Pacific coast bone black prices 2c per lb. higher
Bonemeal, steamed, works, E ton.62.50 —
Bone oil, dms. works lb. .65 .70
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate precip (see Calcium phosphate tribasic)
Borax, tech. anhyd 99%, bgs. c.l. works ton.83.00 —
bgs. ton lots ex whse. New York or Chicago ton.137 25 —
Borax, tech., anhyd., 99½%, bgs., smaller lots, same basis.ton.142.25 —
bulk c.l. works ton 74.00 —
Tech. cryst. 99½% bgs. c.l. works ton.81.00 —
bgs. ton lots, ex whse New York or Chicago ton.137.25 —
bgs. smaller lots same basis ton.142.25 —
gran. decahydrate 99½% bgs. c.l. works ton.45.00 —
bgs. ton lots, ex whse. New York or Chicago ton.99.25 —
bgs. smaller lots, same basis ton.104.25 —
bulk c.l. works ton 38.50 —
gran., pentahydrate, 99½%, bgs., c.l., works ton.60.00 —
bgs. ton lots, ex whse New York or Chicago ton.114 25 —
bgs. smaller lots, same basis ton.119.25 —
bulk c.l. works ton.53.50 —
powd. 99½% bgs. c.l., works. ton.50.00 —
bgs., ton lots ex whse New York or Chicago ton.104 25 —
smaller lots same basis ton 109.25 —
USP borax $15 per ton higher
Bordeaux mixture bgs. c.l., works, frt alld or nearest whse. pt lb. .18 .24
bgs., l.c.l. same basis lb. .19 .26
Boric acid tech. 99 9% cryst., bgs., c.l. works ton.129 00 —
Boric acid, tech., 99.9% cryst., bgs., ton lots, ex whse New York or Chicago ton.184.25 —
bgs. smaller lots same basis ton.189.25 —
dms. c.l. works ton.153 50 -173 50
dms., ton lots, ex whse. New York or Chicago ton.208 75 -228 75
dms. smaller lots same basis ton.213.75 -233.75
99.9% gran. bgs. c.l. works.ton 104 00 —
bgs., ton lots, ex whse New York or Chicago ton.159 25 —
bgs. smaller lots same basis ton.164.25 —
dms. c.l. works ton 128 50 -148.50
dms., ton lots, ex whse, New York or Chicago ton.183 75 -203.75
dms. smaller lots same basis ton.188.75 -208.75
bulk c.l. works ton.98 00 —
99.9%, powd., bgs. c.l., works. ton.109.00 —
bgs., ton lots, ex whse New York or Chicago ton.159.25 —
bgs. smaller lots same basis ton.164.25 —
dms. c.l. works ton.133.50 -153.50
dms., ton lots, ex whse., New York or Chicago ton.188.75 -208.75
dms. smaller lots same basis. ton.193.75 -213.75
USP boric acid $25 per ton higher
Borneol, cns. lb. 2.75 —
Boron trichloride, CP 1,800-lb. cyls., works lb. 1.25 —
100-lb. cyls., works lb. 1.70 —
Boron trifluoride gas, cyls, truckload, works lb. .62 —
cyls., l.t.l., works lb. .70 —
Brazilwood extract (see Hypernic extract)
Brimstone (see Sulfur).
Broenner's acid, bbls lb. 1.76 —
Bromine, purif. cs. c.l., t.l., dlvd. E of Rockies lb. .32 —
cs., l.c.l., same basis lb. .34 .39
ret. dms. c.l. t.l. dlvd. E. of Rockies lb. .31 —
ret. dms. l.c.l. same basis lb. .31 .34
tanks, same basis lb. .22½ —
Bromochloromethane dms., c.l., frt. equald lb. .48 —
dms., l.c.l., same basis lb. .50 —
tanks, same basis lb. .47 —
Bromoform, pharmaceutical grade, 100-lb chys lb 1.80 1.90
Bromstyrol, bots lb. 5.45 - 5.70
Brucine, cns., 100-oz. lots oz. .20 Nom.
Brucine sulfate NF cns., 100-oz. lots oz. .20 Nom.
Buchu leaves, bls lb. 1.20 —

Brown Pigments

Brown pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Brown, iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, retd. cyls. c.l., refy lb .21 —
cyls., l.c.l., refy lb. .22 —
tanks, contract refy. lb. .14¾ .15
Butane, indust., tanks, group 3 gal. .04 —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 —
dms., l.c.l., same basis lb. .18 —
tanks, same basis lb. .14½ —
Syn., dms., c.l., dlvd. E lb. .17 —
dms., l.c.l., same basis lb. .18 —
tanks, same basis lb. .14½ —
sec-Butyl acetate syn., dms., c.l., dlvd. E lb. .14¾ —
dms., l.c.l., same basis lb. .15¾ —
tanks, same basis lb. .12¾ —
Butyl alcohol, ferment, dms., c.l., frt. alld lb. .17 —
dms., l.c.l., frt. alld lb. .18 —
tanks, frt. alld lb. .14½ —
Syn., dms., c.l., dlvd lb. .17 —
dms., l.c.l., dlvd lb. .18 —
tanks, dlvd lb. .14½ —
sec-Synthetic, dms., c.l., dlvd lb. .15 —
dms., l.c.l., dlvd. lb. .16 —
tanks, dlvd. lb. .12½ —
tert-Synthetic, dms. c.l., frt alld, dlvd. E lb. .14¾ —
dms., l.c.l., same basis lb. .15¾ —
tanks, same basis lb. .12¼ —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms. c.l., works lb. .37½ —
dms. l.c.l. works lb. .38¼ —
n-Butyl ether dms., c.l., works lb. .35¼ —
dms., l.c.l., works lb. .36 —
tanks works lb .33¼ —
Butyl lactate dms c.l. frt alld E of Rockies lb 42½ —
dms. t.c.l., same basis lb. 43½ —
tanks, same basis lb 40 —
Butyl laurate dms. works lb. 37½ —
Butyl methacrylate dms., c.l., t.l., works lb. .55 —
dms. t.c.l. works lb .55½ —
Butyl oleate refd., dms., t.c.l., works lb .32 —
Butyl phenylacetate dms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate)
Butyl stearate, dms. c.l. frt. alld. E of Mississippi lb. .25¾ .26
dms., t.c.l., same basis lb. .26¾ —
Butylamine (see Mono- Di and Tributylamine)
6-tert-Butyl-m-cresol, dms., c.l., works lb .55 —
dms. t.c.l. works lb. .56 —
tanks, works lb .54 —
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol)
p-tert-Butylphenol, bgs., c.l., works. lb. .27½ —
bgs., t.c.l., works lb. .28½ —
Butyraldehyde, dms., c.l., dlvd lb. .22 —
dms., l.c.l., dlvd. lb. .23 —
tanks, dlvd lb. .19½ —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 —
dms., t.c.l., same basis lb. .34½ —
tanks, same basis lb. .32½ —
Butyric ether (see Ethyl butyrate).

C

Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt. alld. E of Rockies lb. 6.30 —
Light shade bbls., same basis lb 5.90 —
Medium shade bbls. same basis. lb. 5.30 —
Medium light shade, bbls., same basis lb. 4.90 —
Orange-red shade bbls., same basis lb. 4.35 —
Cadmium CP yellow, all shades, bbls., frt alld E of Rockies lb 2.85 —
Cadmium iodide, 25-lb fib dms lb 6.75 7.00
Cadmium metal ingots or sticks, cs., dlvd lb. 1.70 —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld. E. of Rockies lb. 1.70 —
Cadmium-mercury lithopone red, dark shade, bbls. same basis.lb 2.30 —
Light shade bbls., same basis lb 1.85 —
Medium shade bbls. same basis. lb 2.15 —
Medium light shade bbls., same basis lb 2.00 —
Maroon shade bbls. same basis. lb 2.45 —
Cadmium-selenide lithopone orange, deep shade bbls., frt alld E of Rockies lb 2.00 —
Light shade, bbls same basis.lb. 1.80 —
Cadmium-selenide lithopone red, dark shade bbls. frt alld E of Rockies lb. 2.93 —
Light shade bbls. same basis lb 2.05 —
Maroon shade bbls. same basis lb. 3.15 —
Dark maroon shade, bbls., same basis lb. 3.27 —
Medium shade bbls., same basis lb. 2.54 —
Medium-light shade, bbls. same basis lb 2.23 —
Orange-red shade, bbls., same basis lb. 1.82 —
Orange shade, bbls. same basis. lb. 1.66 —
Cadmium-selenide lithopone yellow, all shades, bbls., frt. alld E of Rockies lb 1.15 —
Caffeine, NF, citrated, dms., 100-lb lots or more lb 2.70 —
USP, nat., cryst., anhyd., dms., 100-lb. lots or more lb. 2.50 —
cryst., hydrous, dms 100-lb lots or more lb. 2.33 —

You get *personalized container service* from

USS

Your US Steel representative makes it his business to understand yours, so he can help you select the right container for your needs. Profit from this know-how and personal service next time you shop for containers. Your US Steel salesman is always as near as your telephone.

Profit from all 5 of these US Steel extras, too.

- **Best rust protection**—there's more zinc phosphate on every USS rust-inhibited container.
- **Eye-catching containers**—your containers not only ship your product, but advertise it, too—when color-decorated by U. S. Steel.
- **Prompt container delivery**—a 7-point factory system gives you next-door service anywhere—any time.
- **Widest container variety**—from 2½-gallon pails to 55-gallon drums, including stainless.
- **Lower unit cost**—USS stainless-steel containers with their patented design give lifetime service at unequaled long-run economy.

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USS STEEL DRUMS

UNITED STATES STEEL

Caffeine—Cashewnut Shell Liquid

Caffeine, USP, syn., cryst., anhyd., dms., 100-lb. lots or more. lb. 2.50 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 2.33 - —
Cajeput oil, native, cns. lb. 1.75 - 3.30
Redist, USP., cns. lb. 1.90 - 2.10
Calamine, USP, dms. lb. .34 —
Calamus oil, bots. lb. 12.00 -20.00
Calciferol, cryst., vials, 1-kilo lots, works gram. .60 - —
Vials, 25 to 100 gram lots, works gram. .65 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 4.00 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld lb. .09 - .09½
bgs., l.c.l. same basis lb. .10 - .10½
Calcium bromide, NF, 100 lbs. or more lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton 149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton 10.50 - —
chalk, whiting, 325 mesh, bgs., c.l., works ton 32.00 -34.00
water-grd., ¼ to 10 microns, bgs., c.l., works ton 30.00 - —
10 to 20 microns, bgs., c.l., works ton 17.00 -18.00

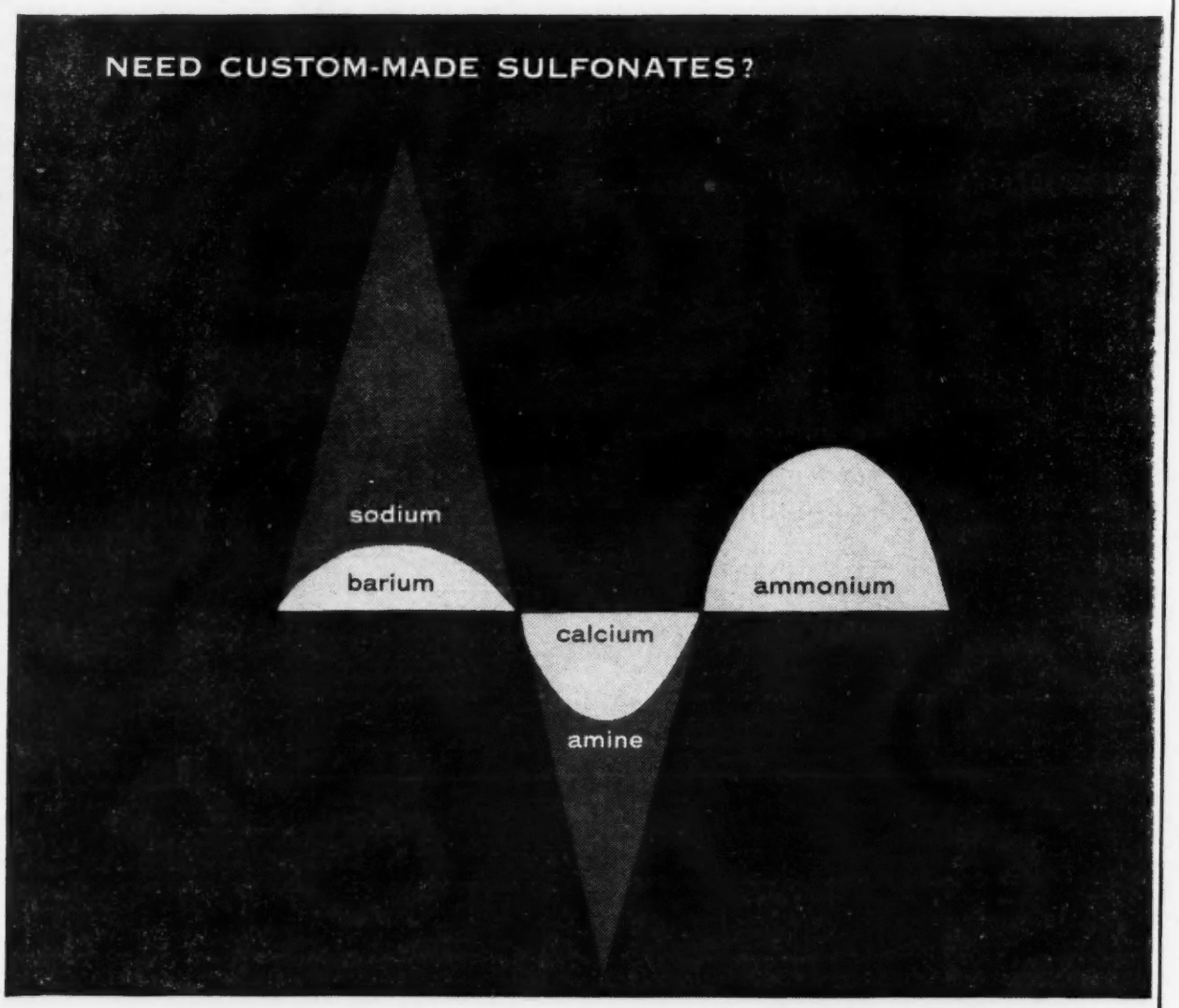
Calcium carbonate, precip., dense, bgs., c.l., works ton 32.50 - —
bgs., l.c.l., works ton 42.50 - —
medium, bgs., c.l., works ton 38.00 - —
bgs., l.c.l., works ton 48.00 - —
Calcium carbonate, precip., surface treated bgs., c.l., works. ton 37.50 - —
bgs., l.c.l., works ton 47.50 - —
ultrafine, bgs., c.l., works ton 110.00 -160.00
bgs., l.c.l., works ton 120.00 -175.00
Calcium chloride, flake, 77-80%, paper bgs., c.l., works, frt. equald ton 31.00 - —
Gran., purif., dms. lb. .27 - —
Calcium chloride, liquor, 40%, tanks, frt. equald ton 12.50 - —
Pellets, bgs., c.l., works ton 37.80 - —
Calcium chloride, powd., bgs., c.l., works ton 37.00 - —
Solid, 73-75%, dms., c.l., frt. equald ton 29.50 - —
dms., l.c.l., works, frt. equald. ton 36.00 -73.00
USP, gran., dms lb. .32 - —
Calcium chromate, bgs., frt. equald. lb. .29½- .30
Calcium cyanide, dms., c.l., dlvd. E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb. dms. lb. 2.95 - —
Calcium gluconate, AA, dms. lb. .76 - —
USP, dms. lb. .67 - .69
Calcium hydride, lump, dms., works. lb. 2.20 - 3.00

Calcium hypochlorite, high test, 45-lb. cs., dlvd. E. of Rockies cs. 22.95 -23.10
100-lb. dms., same basis dm. 30.80 -34.50
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars lb. 4.52 - —
Calcium lactate, NF, dms., 10,000-lb. lots or more, works lb. .36 - .40
smaller lots, works lb. .41 - .48
Calcium mandelate, USP, dms., works lb. 2.10 - 2.25
Calcium naphthenate, liq., 4% Ca., dms., frt. equald lb. .27¼- —
Calcium pantothenate, dms., bots., frt. adjusted gram. .045 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenolsulfonate, dms lb. .74 - —
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs. 7.75 - —
bgs., l.c.l., frt. equald. 100 lbs. 8.50 - —
Feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton 79.55 -83.25
bgs., l.c.l., frt. equald ton 89.55 -93.25
19% P, c.l., works, Tex. Cit ton 76.00 - —
21% P, bgs., c.l., t.l., frt. equald ton 90.30 - —
bgs., l.c.l., frt. equald ton 100.30 - —
Monobasic, bgs., 10,000-lb. lots, frt. equald 100 lbs. 7.20 - —
bgs., smaller lots, same basis, 100 lbs. 7.70 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald 100 lbs. 10.50 - —
Calcium phytate, bgs., works lb. .50 - —
Calcium resinate, precip., dms., ton lots, frt. alld., works lb. .33 - —

Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½- —
Calcium silicate, paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calcium sulfate (see Gypsum).
Calomel, NF X, powd., dms lb. 5.42 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l., same basis lb. .16½- —
tanks, same basis lb. .12½- —
Camphene, chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.68 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .63
tablets, 1-oz., ½-oz. cs lb. .85 - .90
Syn., tech., 1 bbl or more lb. .48 - —
Syn., USP, gran., powd., bbls., 2,000-lb lots lb. .59 - —
bbls., 1,000-lb lots lb. .60 - —
bbls., smaller lots lb. .61 - —
tablets, ctns., 1,000-lb. lots lb. .85 - —
ctns., 500-lb lots lb. .86 - —
ctns., smaller lots lb. .87 - —
Camphor oil, sassafrassy, dms. lb. .26 - .35
White, dms lb. .29 - —
Cananga oil, native, cns lb. 7.60 - 7.85
Rectified, cns lb. 9.55 -12.65
Candelilla wax, crude, bgs. lb. .53 - .55
Refd., bgs. lb. .57 - .60
Powdered Candelilla wax, 20 to 100 mesh, 8c. higher.

Cantharides, Chinese, cs. lb. 2.00 2.05
powd., bxs lb. 2.25 - 2.30
Russian, bgs lb. 3.50 - —
powd., bxs lb. 4.10 - 4.15
Capric acid, dms. lb. .27 - .29
tanks lb. .25 - —
Caprol alcohol, 85% dms., c.l., and t.l., works lb. .19 - —
dms., t.t.l., same basis lb. .19½- —
tanks, frt. equald lb. .16½- —
Sec., 92-99%, dms., c.l. lb. .22 - —
dms., l.c.l. lb. .23 - —
tanks lb. .19½- —
Caprylic acid, dms. lb. .27 - .29
tanks lb. .25 - —
Capsicum (see Pepper, red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF from dom. pepper, dms lb. 4.75 - 5.25
NF, from African pepper, dms lb. 4.50 - 5.00
Caraway seed, Dutch, bgs lb. .10½- .11
Caraway oil, NF, cns. lb. 2.75 - —
Carbazole, 97% bbls. ton lots, works lb. 1.03 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .07 - —
bgs., c.l., works lb. .074 - —
bgs., l.c.l. works lb. .1225- —
Furnace, fast extruding, bgs., c.l., works lb. .08 - —
ctns., l.c.l., whse lb. .10 - —
high abrasion, bulk, c.l., works. lb. .0750- —
bgs., c.l. works lb. .0790- —
bgs., l.c.l., dlvd or whse lb. .122 .125
high modulus, bgs. c.l., works. lb. .0750- —
ctns., l.c.l., whse lb. .0950- —
semi-reinforcing, bgs. c.l., works, lb. .0450- —
bgs., ctns., l.c.l. whse lb. .0850- —
Pigment, high color beads, ctns., c.l., works lb. .72 - —
ctns., l.c.l., dlvd or whse. lb. .78 - —
medium color uncompressed, bgs. c.l., works lb. .12 - —
bgs. l.c.l., dlvd or whse lb. .19 - —
Carbon dioxide, indust., wholesale, bulk dlvd. Metropolitan area ton 73.00 -115.00
cyls., works lb. .08 - .09
Solid, wholesale, works lb. .035 - .040
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald. to competitive points lb. .07 - —
55-gal. dms. l.c.l., same basis lb. .08½- .09
5-gal. dms., 30 dms. to c.l., same basis lb. .13 - —
5-gal. dms., less than 30 dms., same basis lb. .16 - —
tanks, dlvd. lb. .0545- —
Carbon tetrachloride, CP, consumers, dms., c.l. frt. alld lb. .12¾- —
l.c.l. frt. alld lb. .15¼- —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾- —
dms., l.c.l., t.t.l. frt. alld lb. .14¼- —
tanks, frt. alld lb. .10¾- .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb 4.10 4.75
Cardamom oil, NF, bots. lb. 45.00 -48.00
Cardamom seed, bleached, "A" lb. 3.15 - —
Bleached, "B" lb. 3.05 - —
Decorticated, Ceylon cs lb. 3.00 - —
Guatemalan, cs lb. 2.95 - —
Green, Alleppey, bgs lb. 2.30 - —
Ceylon, bgs. lb. 2.30 - —
Carmine No. 40, NF bulk, 100-lb. lots or more dlvd lb. 16.80 - —
bulk, smaller lots dlvd lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots lb. .68 - .69
North country No. 2, crude, bgs., ton lots lb. .78 - .80
refd., pure, ton lots lb. .92 - .94
North country No 3, Ceara, crude, bgs., ton lots lb. .70 - .72
Ceara, refd., pure bgs., ton lots. lb. .80 - .82
Parnahyba, crude, bgs. ton lots. lb. .72 - .73
Parnahyba, refd. pure, bgs., ton lots lb. .80 - .82
Carnauba wax, yellow, No. 1, Ceara, bgs., ton lots lb. 1.37 - 1.39
Parnahyba, bgs. ton lots lb. 1.39 - 1.41
Powdered carnauba wax, 20 to 100 mesh, 8c. higher.

Carotene, tech, 1,350,000 A units per gram, tins, 5-10 kilo lots, dlvd gram. .295 - —
Carotene, tech., in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works, million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units .21 - —
b-Carotene, in vegetable oil, 400,000 A units per gram, cns. gram. .084 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. gram. .35 - —
Carvol, bots. lb. 5.80 - 6.00
Cascara sagrada bark, bulk lb. .33 - .36
Casein, dom. edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
Dom., edible, acid precip., 80 mesh bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., acid-precip. grd., Argentine, bgs., c.l., duty paid lb. .21¾- .22
New Zealand, duty paid lb. .25 - —
Cashewnut shell liquid, treated, dms., c.l., Newark, N. J lb. .22 - —
dms., ton lots, same basis lb. .23 - —
dms., dm. lots, same basis lb. .25 - —



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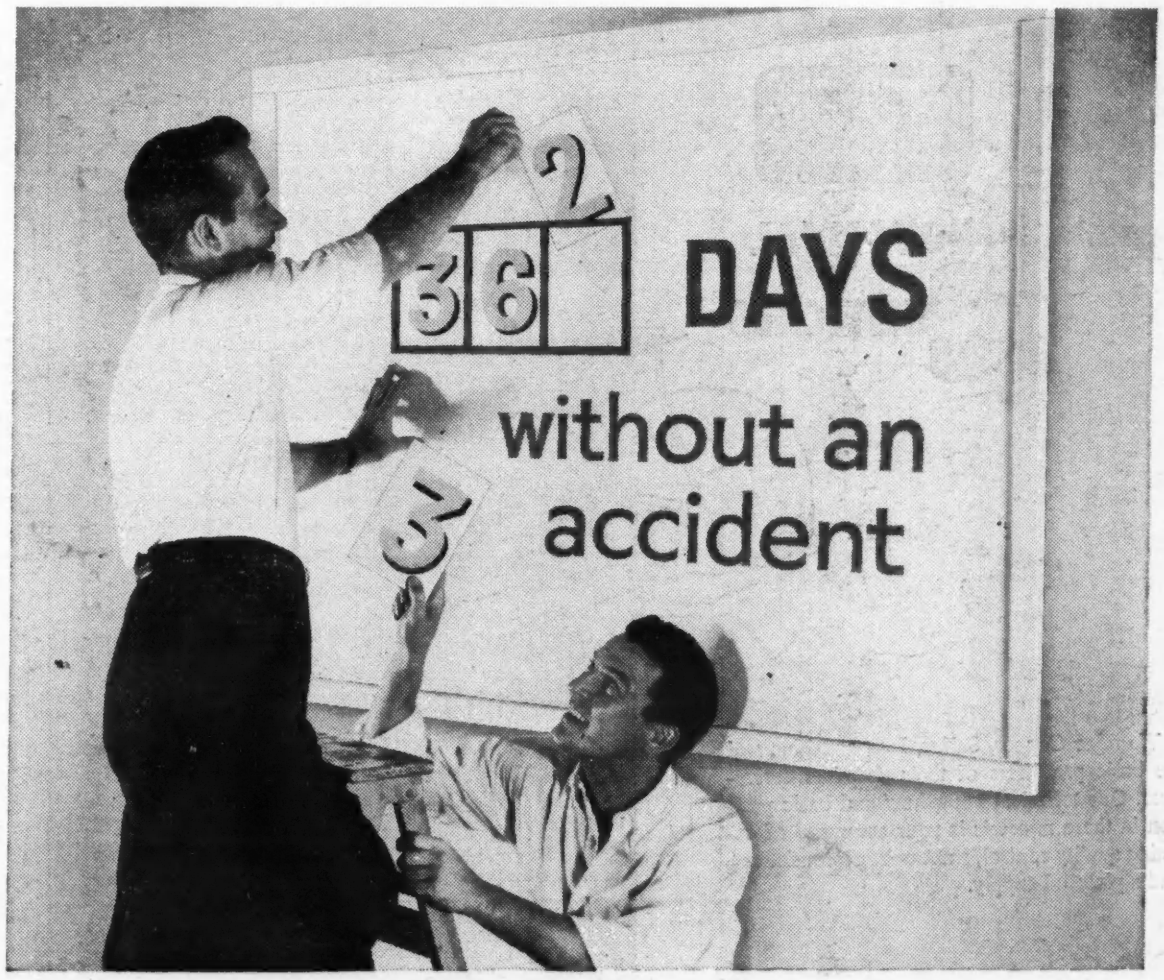
Cassella acid, dms., frt. alld., 100% basis	lb.	1.44	1.73
Cassia, Batavia, "A," bls.	lb.	.19½	—
"B"	lb.	.18	—
"C"	lb.	.17	—
Korintje "A"	lb.	.19	.19¼
"B"	lb.	.18	.18½
"C"	lb.	.17¼	—
Cassia oil (see Cinnamon leaf oil, USP).			
Castor beans, bgs., f.o.b. Brazil.	ton.	120.00	125.00
Castor oil, dom., blown, dms., c.l.	lb.	.2850	—
dms., l.c.l.	lb.	.2950	—
dehydrated, bodied, dms., c.l.	lb.	.3010	—
dms., l.c.l.	lb.	.3110	—
tanks	lb.	.2810	—
dehydrated, unbodied, dms., c.l.	lb.	.2860	—
dms., l.c.l.	lb.	.2960	—
tanks	lb.	.2660	—
hydrogenated, bgs., ton lots	lb.	.3325	—
bgs., l.c.l., dlvd	lb.	.3525	—
No. 1, dom., dms., c.l.	lb.	.2500	—
dms., l.c.l.	lb.	.2600	—
tanks	lb.	.2300	—
No. 3, tech., dms., c.l.	lb.	.2425	—
dms., l.c.l.	lb.	.2525	—
tanks	lb.	.2225	—
Refd. and deodorized, dms., c.l.,	lb.	.2950	—
dms., l.c.l.	lb.	.3050	—
USP, dms., c.l.	lb.	.2650	—
dms., l.c.l.	lb.	.2750	—
tanks	lb.	.2450	—
Imp., No. 1, Brazilian, tanks	lb.	.19¼	—
Castor oil sulfonated, 50%, dms., works	lb.	.15¼	.15½
75%, dms., works	lb.	.20	.20½
Castor oil acids, dehydrated, dms.	lb.	.44¼	.46¼
split, dms	lb.	.37¼	.38¼
Castor pomace, bgs., c.l., works.	ton.	45.50	Nom.
Castoreum, nat., cns.	lb.	5.25	30.00
Syn., cns.	lb	9.00	—
Catechol, CP, cryst., fib. dms., works	lb.	2.17½	—
Resub., dms., works	lb.	4.29½	—
Catnip leaves, Southern, bls.	lb.	.75	—
Caustic potash (see Potash, caustic).			
Caustic soda (see Soda, caustic).			
Cedarleaf oil USP XIII, cns., dms.	lb.	3.45	4.50
Cedarwood oil, cns., dms	lb.	.62	.80
Celery seed, French, bgs.	lb.	.28	—
Indian, bgs.	lb.	.22½	.23
Celery seed, oil, bots.	lb.	16.50	17.50
Cellulose acetate, flake, powd., bgs., ctns. 100-lb. lots or more, dlvd E	lb.	.35	.45
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E	lb.	.545	.555
27% butyryl content, bgs., dlvd. E	lb.	.595	.605
38% butyryl content, bgs., dlvd. E	lb.	.545	.555
38% butyryl content, half-second, bgs., dlvd. E	lb.	.545	.555
50% butyryl content, bgs., dlvd. E	lb.	.585	.595
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more, works, frt. alld	lb.	.57	—
bgs., smaller lots, same basis.	lb.	.59	—
Cerium chloride, 48% dms., dlvd	lb.	.30	—
Cerium hydrate, 74% CeO_2 fib. dms., 100-lb. lots or more	lb.	1.44	—
77% CeO_2, fib. dms., 100-lb. lots or more	lb.	1.74	—
Cerium oxalate (see Rare earth oxalate).			
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd	lb.	1.85	1.98
bgs., smaller lots, dlvd	lb.	2.03	2.23
Cetyl alcohol, extra fib. cns., 500-lb. lots or more	lb.	.65	.72
NF, fib cns., 140-lb. lots or more.	lb.	.48	—
Chalk (see Calcium carbonate).			
Chamomile flowers, Hungarian style, bls.	lb.	1.50	—
Roman, cs.	lb.	3.50	—
Chamomile oil, blue, Hungarian, bots	lb.	350.00	—
Charcoal, activated, NF, fib. dms., c.l., works	lb.	.25	.32
fib. dms., 5-ton lots, works	lb.	.26½	.32½
fib. dms., smaller lots, works.	lb.	.27	.50
Charcoal, black (see Charcoal, activated).			
Charcoal, bone (see Bone, black).			
Charcoal, hardwood, bulk, lump, c.l., f.o.b. plant	ton.	55.00	—
briquets, bulk, c.l., f.o.b. plant	ton.	78.00	80.00
5-lb. paper bgs., c.l., same basis	ton.	106.00	—
10-lb. paper bgs., c.l., same basis	ton.	96.00	—
25 lb. paper bags, c.l., f.o.b. plant	ton.	87.00	—
briquets, 40-lb. paper bgs., c.l., same basis	ton.	84.00	—
Pinewood, gran. bgs., c.l., works, South	ton.	57.00	—
bgs., l.c.l., works, South	ton.	57.00	67.00
Pinewood, lump, bgs., c.l., works, South	ton.	53.50	—
bgs., l.c.l. works, South	ton.	56.50	71.00
bulk, c.l., works, South	ton.	38.00	—
bulk, t.l., works South	ton.	41.00	—
Chenopodium oil, NF, cns.	lb.	4.65	5.00
Chestnut extract, imp. solid, 60% tannin, bgs., ex dock	lb.	.08½	—
powd., 70% tannin, bgs., ex dock	lb.	.0959	—
Chicago acid, paste, bbls., frt. alld.	lb.	3.21	—
Chinawood oil (see Tung oil).			
Chloral, tech., 94% min. dms., c.l., works	lb.	.23	—
dms., l.c.l., works	lb.	.24	—
tanks, multiple units, 5 cars, works	lb.	.21	—
Chloral hydrate, USP, jars, 1,000-lb. lots	lb.	1.00	—
jars, 500-lb. lots	lb.	1.03	—
jars, 100-lb. lots or less	lb.	1.05	—
Chloramine T, NF, bbls., works	lb.	.75	1.00
Chlordan, agricultural, dms., c.l., frt. alld	lb.	.65	—
dms., l.c.l., 5,000 to 10,000-lb. lots, frt alld	lb.	.66	—
Clarified, dms., c.l., frt. alld	lb.	.69	—
dms., l.c.l., 5,000 to 10,000-lb. lots, frt. alld	lb.	.70	—
Chlorinated paraffin, 40%, dms., c.l., frt. alld	lb.	.16¼	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.17¼	—
70%, dms., c.l., same basis	lb.	.18½	—
dms., l.c.l., 10 dms. or more, same basis	lb.	.19½	—
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works	lb.	.60	—
ctns., l.c.l., works	lb.	.61	—
125, 1,000 cps., ctns., c.l., works.	lb.	.70	—
ctns., l.c.l., works	lb.	.71	—
Chlorine, liq., cyls., c.l., works, frt. equald	lb.	.11	—
cyls., l.c.l., Metropolitan area	lb.	.12½	.13¼
tanks, single units, works, frt. equald 100 lbs.		3.15	—
tanks, multiple units, 5 cars, works, frt. equald 100 lbs.		4.05	—
Chlorine, liq., tanks, multiple units, 2 cars, same basis	100 lbs.	8.75	—
tanks, multiple units, 2 cars, same basis	100 lbs.	5.25	—
tanks, multiple units, 1 car, same basis	100 lbs.	6.25	—
Chloroacetic acid, mono, flake, 99%, dms., c.l.	lb.	.23½	.25½
dms., l.c.l.	lb.	.24½	—
tech., flake, 96-97%, dms., c.l., frt. equald	lb.	.19	—
dms., l.c.l., frt. equald	lb.	.20	—
4-Chloro-2-aminotoluene, fused, bbls.	lb.	1.45	—
m-Chloroaniline, dms., min. 10,000 lbs., or over, frt. alld	lb.	.75	—
dms., less than 10,000 lbs., same basis	lb.	.80	—
tanks, same basis	lb.	.73	—
o-Chloroaniline, dms., c.l., frt. alld.	lb.	.52	—
dms., l.c.l., same basis	lb.	.54	—
tanks, same basis	lb.	.50	—
p-Chloroaniline, dms., c.l., frt. alld.	lb.	.77	—
dms., l.c.l., same basis	lb.	.79	—
o-Chlorobenzaldehyde, dms., t.l., works, dlvd. to N.Y. Metropolitan area	lb.	1.05	—
dms., l.t.l., same basis	lb.	1.20	—
dms., 500 to 1,500 lbs. same basis.	lb.	2.00	—
p-Chlorobenzaldehyde, dms., 2,000 lbs. or more, works, dlvd. to N. Y. Metropolitan area	lb.	1.95	—
o-Chlorobenzoic acid, fib. dms., t.l., works	lb.	1.10	—
fib. dms., smaller lots, works	lb.	1.25	—
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works.	lb.	2.25	—
fib. dms., less than 2,000-lbs., same basis	lb.	2.30	—
Chloroform, tech., dms., c.l., dlvd. E	lb.	.18	—
dms., l.c.l., same basis	lb.	.19	—
tanks, same basis	lb.	.17	—
USP, dms.	lb.	.30	—
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis	lb.	.81	—
Powd., dlvd. E., 100% basis	lb.	.86½	—
4-Chloro-2-nitroaniline, powd., dlvd. E.	lb.	.80½	—
o-Chlorophenol, dms., c.l., frt. equald	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
p-Chlorophenol, dms., c.l., frt. equald	lb.	.37	—
dms., l.c.l., same basis	lb.	.38	—
Chloropicrin, coml., bots.	lb.	1.50	—
Coml., cyls., 180 lbs., frt. alld	lb.	.95	—
cyls., 100 lbs., same basis	lb.	.97	—
cyls., 25 lbs., same basis	lb.	1.23	—
Chlorosulfonic acid, dms., c.l., frt. equald	lb.	.0463	—
dms., l.c.l., frt. equald	lb.	.0515	—
tanks, frt. equald	lb.	.0415	—
Chlorosulfonic acid, in stainless steel dms. ½c. per lb. higher.			
Choline bitartrate, fib. dms., frt. adjusted	kilo.	2.75	3.00
Choline chloride, fib. dms., frt. adjusted	kilo.	2.75	3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted	kilo.	2.75	3.00
Chrome green, CP, dark, light, medium blue content 1 to 15%, bbls., N. of Tenn. and N. C., E. of Miss., including St. Paul, Minn., Davenport, Rock Island, St. Louis	lb.	.40	.42
blue content 16-30%, bbls., same basis	lb.	.40	.42
blue content 31-45%, bbls., same basis	lb.	.41	.43
blue content 45-49%, bbls., same basis	lb.	.44	.46
Reduced color, 25%	lb.	.19	.20

Chrome green prices are ½c. higher, dlvd. at the following points, except as noted:—Ala., Fla., Ga., La. (Shreveport 1½c.) Miss., N. C., S. C., Tenn., Texas (Dallas, Ft. Worth 1½c.; El Paso, 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Jospeh; 1c. higher dlvd. Pac. coast; for Denver, Pueblo, Salt Lake City, Wichita prices are equalized with Chicago.

Chrome orange, CP, bbls., dlvd. N. of Tennessee and N. C., E. of Miss. R. include Davenport, Tenn. and E. of Minneapolis, Rock Island, St. Louis, St. Paul	lb.	.35	—

Chrome orange prices are ½c. higher dlvd. Ala., Fla., Ga., La. (Shreveport 1½c.) Miss., N. C., S. C., Tenn. Dallas and Ft. Worth, Tex., El Paso, Tex., 2c. Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph; 1.6c. higher dlvd. Pac. Coast for Denver, Pueblo, Salt Lake City, Wichita, prices are equalized with Chicago.



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The great safety record of the Chemical Industry is inspiring proof that chemical users, as well, can institute and carry out effective safety programs.

As a helpful contribution to this effort, Olin Mathieson has prepared a series of safety wall charts on . . .

CHLORINE • LIQUID CAUSTIC • SULFURIC ACID
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These wall charts will keep your employees constantly posted on correct handling procedures, on basic precautions to be observed, and on first aid methods when emergencies *do* occur.

We will gladly send you the safety charts you need without obligation.

MATHIESON CHEMICALS
OLIN MATHIESON CHEMICAL CORPORATION
INDUSTRIAL CHEMICALS DIVISION • BALTIMORE 3, MD.

5305

MATHIESON

Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Potash • Caustic Soda • Chlorine • Ethylene Diamine • Formaldehyde
Hexamine • Hydrazine and Derivatives • Hypochlorite Products • Methanol • Muriatic Acid • Nitrate of Soda • Nitric Acid
Polyamines • Soda Ash • Sodium Chlorite Products • Sodium Methylate • Sulfate of Alumina • Sulfur (Processed) • Sulfuric Acid

Chrome yellow, CP bbls., dlvd. N. of Tenn., and N. C., E. of Miss., including Davenport, Minneapolis, Rock Island lb. .35 - —

Chrome yellow price are ½c. higher dlvd. Ala. Fla., Ga., La. (Shreveport 1½c. higher); Miss., N. C., S. C., Tenn.; Dallas, Tex. 1¼c higher; Ft. Worth, Tex. 1½c. higher; El Paso, Tex. 2c higher; Cedar Rapids Des Moines, Kansas City Lincoln, Omaha St. Joseph 1.6c. higher; Dlvd Pac. Coast, for Denver, Pueblo, Salt Lake City Wichita prices are equalized with Chicago.

Chromic acid, 99¾% dms., c.l., works frt. equald lb. .29½- —
dms., l.c.l., dlvd New York Metropolitan area lb. .30 - .31

Chromic acid, NF (see Chromium trioxide)

Chromium acetate, soln., 7½%, bbls., works lb. .09½- —
cbys., works lb. .11¼- —

Chromium fluoride, bbls., works lb. .51 - .52

Chromium oxide, hydrated, bbls., fib dms, c.l. frt. alld lb. 1.20 - —
Pure, bgs., c.l., frt. alld lb. .44¾- —
bgs., l.c.l., same basis lb. .45½- —

Chromium trioxide, NF bots lb. 1.15 - —

Cinchona bark, NF red, broken, bgs. lb. .35 - .40
NF, yellow, broken bgs lb. .35 - .40

Cinnamic acid, refd., bots lb. 2.50 - 3.50

Cinnamic alcohol, bots lb. 2.15 - 2.75

Cinnamic aldehyde, dms lb. .95 1.25

Cinnamon, Ceylon, No. 2, bgs lb. .95 - —
Ceylon, "0000," bgs., afloat lb. 1.20 - —

Cinnamon bark oil, bots lb. 36.00 -70.00

Cinnamon leaf oil, crude, dms lb. 1.60 2.00
USP (Cassia), cns., dms. lb. 8.50 -11.00

Citral, bots., cns lb. 4.40 - 5.70

Citric acid, USP anhyd., fine gran., bgs. dms. c.l lb. .29½- .30
bgs. dms. 10,000-lb. lots, 1 shipt lb. .30 - .30½
bgs., dms., smaller lots lb. .30½- .31
hydrous, fine gran., ogs., dms., c.l lb. .27½- .28
bgs. dms. 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms. smaller lots lb. .29 - .29½
Powdered citric acid ½c. higher.

Citronella oil, Ceylon, cns., dms lb. .70 - 1.25
Java, cns lb. 1.10 - 1.15
Java-type, cns. lb. .87 - .95

Citronellal, bots., dms. lb. 2.05 - 2.20

Citronellol, bots., dms lb. 3.25 3.60

Civet, artif., bots lb. 13.75 15.00
Nat., bots. oz. 8.50 -15.00

Clay, ball., dom., airfloated, bgs., c.l., Tenn ton. 16.50 -21.50
crushed, shed moisture, bulk, c.l., Tenn ton. 8.00 -11.00
purif., bgs., c.l., Tenn ton. 16.50 -21.50

Imp., airfloated, bgs., c.l., Atl. port net ton. 42.00 -45.00
lump, bulk, Atl. port net ton. 29.50 -30.00

Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works ton. 10.00 - —
Georgia, bgs., l.c.l., works ton. 15.50 - —
300 mesh, bgs., c.l., Georgia, works ton. 13.50 -14.50
bgs., l.c.l., same basis ton. 35.00 -36.00

Imp., white, lump, bulk, c.l., ex dock, Philadelphia, Portland, Me long ton. 20.00 -35.00
powd., bgs., c.l., ex dock net ton. 50.00 —
bgs., l.c.l., ex whse net ton. 60.00 -65.00

Cleve's acid, mixed bbls lb. 1.05 - —

Clove, Madagascar, bgs. lb. .41 - —
Zanzibar, bgs. lb. .51 - —

Clove bud oil, USP, cns., dms lb. 2.40 - 2.75

Clove leaf oil, crude, dms. lb. .90 - .95

CMC, crude, 96.4%, low or medium vis., bgs. or fib dms., 23,000 lbs., dlvd E., 100% basis lb. .39½- .41
bgs. or fib. dms., less than 23,000 lbs., dlvd E., 100% basis lb. .41½- .43
crude, 65%, low or medium vis., bgs. or fib. dms., c.l., dlvd. E., 100% basis lb. .39½- .41
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .41½- .43

CMC, purif., high vis. (see Cellulose gum).

CMC, standard, low or medium vis., bgs., 23,000 lbs. works, frt. alld. lb. .57 - —
bgs., smaller lots, same basis. lb. .59 - —

CMC prices W of the Rockies are 2c. per lb. lower and are on a works basis.

Coaltar, crude, resale for soins., dms., c.l., ex whse gal. .30½- —
dms., l.c.l., ex whse gal. .33½- —
tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .30½- .35
dms., l.c.l., ex whse gal. .33½- .39
tanks, works gal. .16½- .20½

Coaltar pitch, aluminum, bulk, works ton. 40.00 -42.00
Carbon and indust., bulk, works. ton. 40.00 - —
Core, bulk, works ton. 36.50 - —
Fiber, bulk, works ton 44.00 - —
Roofing, 140-155°F., Federal Specification RP-381, Type I, tanks, works ton. 41.00 - —

Cobalt acetate, 23.7% Co dms., dlvd. lb. 1.10 - —

Cobalt blue, genuine, 250-lb. bbls., dlvd. N. of Tenn. and N. C., E. of Miss R., including St. Paul, Minneapolis, Davenport, Rock Island St. Louis lb. 4.90 - —

Cobalt blue dlvd prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1¼c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph, 1.6c. higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt equald with Chicago.

Cobalt blue, imitation (see Ultramarine blue).

Cobalt carbonate, 48% Co, powd., bgs., dlvd lb. 1.57 - —

Cobalt chloride, 24.2% Co, dms., dlvd lb. 1.05 - —

Cobalt hydrate, 60-61% Co, dms., dlvd lb. 2.20 - —

Cobalt linoleate, fused 8½% Co, dms lb. .68 - —
Liq., 6% Co, dms lb. .54¾- —

Cobalt metal, 97-99%, kgs., ex whse. lb. 2.00 - —

Cobalt naphthenate liq., 6% Co, dms., dlvd lb. .46½- —

Cobalt nitrate, 20.1% Co, bbls. dlvd. lb. .85 - —

Cobalt oxide, black, 72½-73½% Co, kgs lb. 1.52 - —
70-71% Co, kgs lb. 1.48 - —

Cobalt phosphate powd., 32.1% Co, kgs., dlvd lb. 1.43 - —

Cobalt resinate, fused, 3% Co, dms. lb. .28 - —

Cobalt sulfate, cryst., 21% Co, dms., dlvd lb. .69 - —
Monohydrated, 33% Co, dms., dlvd lb. 1.17 - —

Cobalt tallate, 6% Co, dms., dlvd. lb. .42 - —

Cocaine, USP, cns., 100-oz lots oz. 17.80 - —

Cocaine hydrochloride, cns., 100-oz. lots oz. 13.75 - —

Cocillana bark, bls lb. .25 - —

Cocoa butter, bgs. lb. .94 - .99

Coconut oil, crude, tanks, New York lb. .14 - —
tanks, Pac. coast lb. .13 - —
deodorized, dms., l.c.l. lb. .24 - —

Coconut oil acids, dist., dms. lb. .23½- .25¼
tanks lb. .21½- —
Dbl. dist., dms. lb. .24½- .26¼
tanks lb. .22½- —

Cod oil, Newfoundland, dms lb. .11½- —

Codeine, NF cns., 100-oz. lots oz. 13.25 - —

Codeine hydrochloride, cns., 100-oz. lots oz. 11.75 - —

Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —

Codeine sulfate, USP, cns., 100-oz. lots oz. 10.75 - —

Codliver oil, USP dms gal. 1.50 - 1.55

Cohosh root, black, bls. lb. .20 - .22
Blue, bls lb. .20 - .22

Colchicine, USP, bots., cns. oz. 29.00 -35.50

Colchicum root, bls lb. .35 - —

Colchicum seed, bgs lb. .55 - —

Collodion, USP, dms. lb. .32½- —
Flexible, dms lb. .34 - —

Colocynth pulp, bls lb. .72 - —

Colombo root, bls lb. .15 - .16

Congo copal gum, No. 1, bgs lb. .25 - .26
No. 2, bgs lb. .22 - .24
No. 3, bgs. lb. .15¾- .17

Copaiba balsam, cns., dms lb. .65 - .75

Copaiba oil, cns lb. 1.75 - 2.50

Condurango bark, bls lb. .26 - —

Copper acetate, bbls., c.l., works. lb. .53 - —
bbls., l.c.l., works lb. .54 - —

Copper carbonate, 55%, bgs., c.l., works lb. .3175- —
bgs., l.c.l., works lb. .3325- —

Copper chloride, cupric, anhyd., dms., works lb. .42 - .42¼
Cryst., dihydrate, dms., works. lb. .28¼- .28¾
Cryst., dried, dms., works lb. .36½- .37

Copper chloride, cuprous, dms., works lb. .4068- .4468

Copper cyanide, tech, dms., 20,000-lb. lots or more lb. .666 - —
dms., 1,000-lb. lots or more lb. .676 - —
dms., smaller lots lb. .696 - .716

Copper gluconate, dms. lb. 3.20 - —

Copper hydrate, dms., c.l., frt. alld. E. of Miss lb. .48¼- —
dms., l.c.l., same basis lb. .48¾- —

Copper metal, electrolytic dlvd. Valley basis lb. .28½- —

Copper naphthenate, liq., 8% Cu, dms., frt alld lb. .24 - —

Copper nitrate, tech., cryst., dms., works lb. .29¼- .31¼

Copper oleate, solid, 9% Cu, dms., works lb. .45 - —

Copper oxide, black, bbls., 100-1,999-lb. lots, works lb. .43 - —

Copper oxide, red, 97% USN type I, bbls., 100-5,000-lb lots. lb. .43 - —
90% USN Type II, bbls., 100-5,000-lb. lots or more, works. lb. .41 - —

Copper oxychloride, dms., c.l., works lb. .52 - —
dms., l.c.l., works lb. .53½- .63¼

Copper quinolinolate, fib dms. lb. 4.25 4.50

Copper resinate, precip., dms., frt. alld lb. .34 - —

Copper sulfate, CP, gran., dms., works lb. .1810- —
Cryst., 99%, bgs., c.l., works. 100 lbs. 11.55 - —
bgs., l.c.l., same basis 100 lbs. 12.05 -14.55

Copper sulfate, monohydrated, 35%, dms., c.l., works 100 lbs. 21.15 - —
dms., l.c.l., works 100 lbs. 21.90 - —

Tribasic, distributors, bgs., c.l., same basis 100 lbs. 25.45 - —
bgs., l.c.l., same basis 100 lbs. 26.45 -29.45

Copper undecylenate dms lb 2.75 —

Copra, Atl., Gulf ports, c.i.f. ton. 167.50 - —
Pac. ports, c.i.f. ton. 162.50 - —

Coriander oil, USP, bots. lb. 9.00 -10.50

Coriander seed, Moroccan, bgs lb. .09½- —
Rumanian, bgs. lb. .07½- —
Yugoslavian bgs. lb. .08½- —

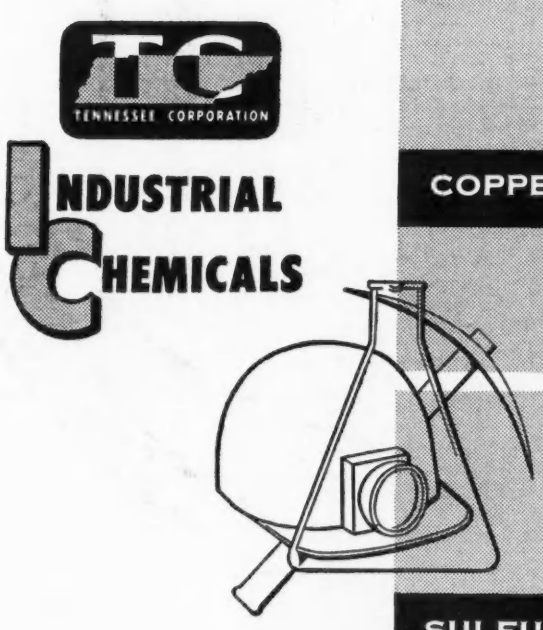
Corn oil, crude, tanks, works lb. .14½- —

Foots (soapstock) acid 95%, tanks, New York lb. .06½- —
Refd., salad, dms. lb. .1985- .20¼
tanks lb. .1785- —

Corn oil acids, dist., dms lb. .17¼- .20
tanks lb. .14¾- —

Corn starch (see Starch, corn)

Corn sugar, tanners, chipped paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.33 - —
paper bgs., l.c.l. 100 lbs. 7.58 - —



TC TENNESSEE CORPORATION

INDUSTRIAL CHEMICALS

We mine Copper, Sulfur, Iron and Zinc and are basic producers of their chemical derivatives. Our technical know-how and basic position in these minerals is your assurance of exacting quality control, strict uniform consistency and a plentiful supply.

COPPER

COPPER SULFATE
Industrial Crystals and all common grades.

MONOHYDRATED COPPER SULFATE
35% Copper as metallic packaged in steel drums at no extra cost.

COPPER CARBONATE
55% Copper as metallic. Light and dense grades.

CUPRIC CHLORIDE
37% Copper as metallic. Available in polethylene-lined drums or bags.

CUPRIC OXIDE
Minimum 76% Copper as metallic. Technical grade . . . NOT A BY-PRODUCT.

SULFUR

SULFURIC ACID

LIQUID SULFUR DIOXIDE
Highest commercial quality, available in tank cars, tank wagons, ton cylinders and 150-lb. cylinders.

CHLOROSULFONIC ACID
Iron less than 1.0 ppm as loaded. Water white. Delivered in glass-lined tank wagons, also in stainless steel drums.

SODIUM HYDROSULFITE
T-C HYDRO is a dry, white, free flowing, crystalline powder of uniform particle size and structure. It is dust free, assuring highest stability and uniformity.

PARA TOULENE SULFONIC ACID, ANHYDROUS
Other organic Sulfonic Acids.

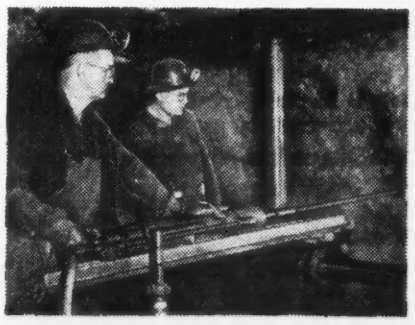
IRON

FERRIC IRON SULFATE
Partially hydrated, free flowing granular form. Available in bags or bulk.

ZINC

MONOHYDRATED ZINC SULFATE
36% Zinc as metallic. White, free flowing powder.

ZINC OXIDE
Secondary Zinc Oxide.



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MANGANESE SULFATE
65% Mn SO_4. Designed specifically for inclusion in mixed fertilizer.

MONOHYDRATED MANGANESE SULFATE
93% Mn SO_4, H_2O. Highest purity, technical grade . . . NOT A BY-PRODUCT.

MANGANOUS OXIDE
Minimum 48% Manganese as metallic. Feeds, fertilizers, spray or dust grades.

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New Basic Source for a
Widely Useful Solvent and Intermediate

National NAXOL*

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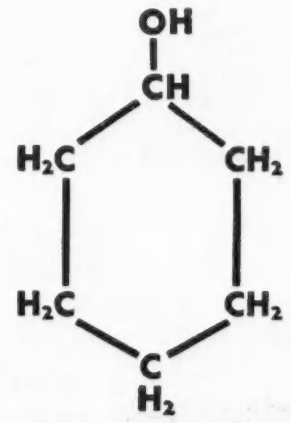
Old hands at catalytic processes, National Aniline is in a particularly strategic position to produce consistently high-quality cyclohexanol.

Our modern new plant at Hopewell, Virginia employs an efficient direct process. Our output is substantial, completely integrated within the Allied Chemical group and completely competitive in every respect.

Two types immediately available: NAXOL (100% material) and NAXOL D (Freezing Point Depressed).

We invite inquiries from present and prospective users of either grade and will be pleased to send specifications, working samples, price and delivery quotations on C/L and LCL quantities.



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Gentlemen:

☐ Please send samples, technical information and quotations on NAXOL.

☐ Please have representative call by appointment.

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TITLE_____

COMPANY_____

ADDRESS_____

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Akron Atlanta Boston Charlotte Chattanooga Chicago Columbus, Ga. Greensboro Los Angeles New Orleans Philadelphia Portland, Ore. Providence Richmond San Francisco Toronto

*Trademark

Corn Syrup—Denatured Alcohol

Corn syrup, 42° Be, non-ret. dms., c.l., 100 lbs. 7.31 - —
non-ret. dms., l.c.l. 100 lbs. 7.46 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP bulk gram 3.50 - 3.55
Costus oil, bots. oz 6.00 - —
Cottonseed meal, 41% bgs., Memphis ton 50.00 - —
Cottonseed oil, crude tanks, South, East lb. .13¼ - .13⅜
tanks, Valley lb. .13¼ - —
tanks, Texas, Lubbock lb. .13 - —
tanks, Texas, Waco lb. .13¼ - —
Foots (soapstock) acid 95%, tanks, New York lb. .05¾ - —
Refd., salad, dms. lb. .13½ - .19
tanks lb. .16½ - —
Cottonseed oil acids dist., dms lb. .16¾ - .19¼
tanks lb. .14¼ - —
Cottonseed pitch, raw, dms., works lb. .03 - .03¼
tanks, same basis lb .02¾ - —
Coumarin, NF, cryst., dms lb. 3.60 - 3.70
Cramp bark, NF, bls lb. .85 - .90
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots. chys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
crude, soln. 80%, tanks, works, gal. .226 - —
refd., dms., c.l., works gal. .42 - .44
dms. l.c.l. same basis gal. .53 - .55
tanks same basis gal. .33 - .35

Creosote oil (see Creosote coaltar).
Creosote, wood, beechwood, chys., dms lb 1.60 - 1.65
Hardwood, NF, bots., chys lb 1.30 - —
Creosote, pinewood, dms., incl., c.l., works lb. .0561- —
dms. incl., l.c.l., works lb. .0634- —
dms. incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works lb. .0460- —
2,3-Cresotic acid, dms., ton lots, works lb. 70 - —
dms., smaller lots, works lb 72 - —
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½ - —
non-ret. dms., t.c.l. same basis lb. .17½ - —
tanks, same basis lb. .145 - —
Cresol, USP, non-ret. dms., c.l., same basis lb. .18 - —
non-ret dms., t.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 - —
dms., t.c.l., works lb. .61 - —
m-p-Cresol, 5-95%, 3°C., dms., c.l., frt. equald lb. .18 - —
dms., t.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
m-p-Cresol, 2.97%, 2°C., dms., c.l., frt. equald lb. .22 - —
dms., t.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —

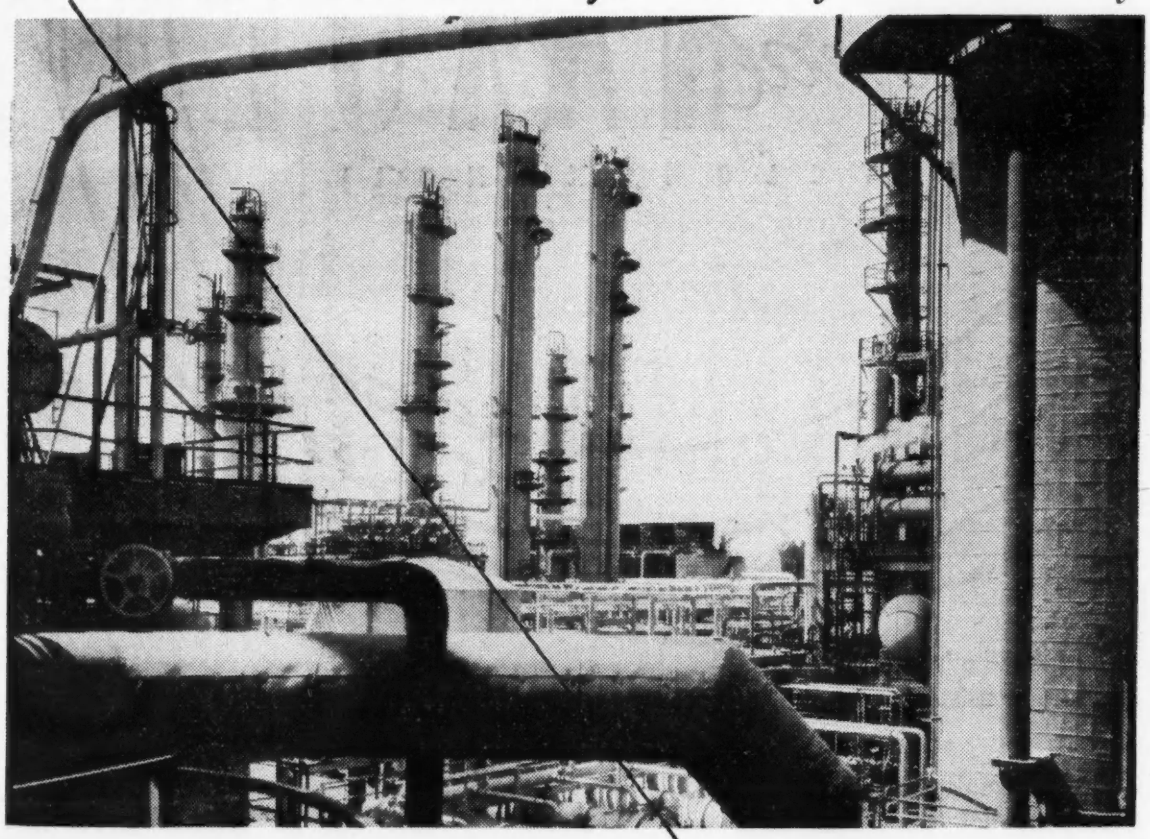
o-Cresol, 30.5°C. m.p. and over, ret. dms., c.l., frt. equald lb. .17 - —
ret. dms., t.c.l., same basis lb. .18 - —
tanks, same basis lb 15 - —
30°-30.49°C. m.p. dms. c.l. frt. equald lb. .16½ - —
ret. dms., t.c.l., same basis lb. .17½ - —
tanks, same basis lb 14½ - —
o-Cresol, m.p. 29°-29.9° C. dms., c.l., frt. equald lb. .16 - —
ret. dms., t.c.l., same basis lb. .17 - —
tanks, same basis lb 14 - —
25-28.9° C., dms., c.l., frt. equald. lb. .15 - —
ret. dms., t.c.l., same basis lb. .16 - —
tanks, same basis lb 13 - —
p-Cresol, 98% dms. c.l. dlvd lb. .52 - —
dms., t.c.l., dlvd lb. .53 - —
tanks, dlvd lb 49 - —
p-Cresyl methyl ether, ens lb 1.30 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and trieresyl phosphate grades, tanks, frt. equald. gal. 1.15 - —
c.l., t.l., same basis gal. 1.35 - —
l.c.l., same basis gal. 1.40 - —
Meta-para content 25% or less, tanks, frt. equald gal. 1.00 - —
c.l., t.l., same basis gal. 1.20 - —
l.c.l., same basis gal. 1.25 - —
Imported, meta-para content, 25% or less, tanks, f.o.b., New Jersey area, frt. equald to competitive points gal. 1.00 - —
Cresylic acid, petroleum, dom. 195° to 214° C., non-ret dms., 65 to c.l., works, San Francisco and Los Angeles gal. .80 - —
l.c.l., same basis gal. .82 - .84
tanks, same basis gal. .65 - —

Cresylic acid, petroleum, dom., 200° C. to 232° C., tanks, Wilmington, Cal gal. .65 - .72
211° C. to 237° C. non-ret. dms., c.l., San Francisco and Los Angeles gal. .76 - —
non-ret dms. l.c.l., same basis gal. .78 - .80
tanks, same basis gal. .61 - —
220° C. to 242° C., tanks, Wilmington, Cal gal. .62 - .67
245° to 295° C., tanks, Wilmington, Cal gal. .50 - —
Crotonaldehyde, 91-93%, dms., t.c.l., works lb. .24¼ - .25
Crotonic acid, fib dms., 200 lbs or more, works lb. .50 - —
Cryolite, nat., mdust., bgs., c.l., works 100 lbs. 13.00 - —
bgs., t.c.l., works 100 lbs. 14.25 - —
Cube root, powd., 5% rotenone bgs., c.l. t.l., works lb .29 - —
Cubeb berries, XX, NF, bgs lb. .80 - —
Powd., cs lb. .95 - —
Cubeb oil, ens. lb. 9.50 - 12.25
Cumene dms., c.l., works lb. .12 - —
dms., t.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs. lb. .23 - .24
Moroccan, bgs lb. .30¼ - —
Turkish, bgs lb. No prices.
Cumin oil, bots., ens. lb. 4.75 - 7.35
Cutch extract, 55% tannin, bgs., ex dock lb. .07½ - —
Cyanamide, fertilizer mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract ton 55.00 - —
pulv., 21% N, bgs. works unit-ton 2.75 - —
Cyanamide, indust., grade, bgs., c.l., works ton 75.00 - —
bgs., t.c.l., works ton 96.00 - —
6-16 mesh dms. c.l., works ton 120.00 - —
dms. t.c.l., works ton 140.00 - —
Cyanoacetic acid, tech., bbls lb .90 - 1.25
Cyclohexane, 99% tech., dms., c.l., works gal. .70 - —
dms., t.c.l., works gal. .72 - —
tanks, works gal. .55 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld., E lb. .26½ - —
dms., t.c.l., works same basis lb. .27½ - —
tanks, works, same basis lb. .24 - —
Cyclohexanone, tech., dms., c.l., works lb. .32½ - —
dms., t.c.l., works lb. .35 - —
tanks, works lb. .29 - —
Cyclohexene, min. 98% b.r., 82.5° C. 85° C., 360-lb dms., c.l., works lb. .55 - —
360-lb dms., t.c.l., same basis, lb. .60 - —
tanks, same basis lb. .52 - —
Cyclohexylamine, dms., c.l., works, lb. .49 - —
dms., t.c.l., works lb. .50 - —
tanks, works lb .47 - —
Cyclopropane, CP 2-lb. cyls., works, cyl. 48.00 - —
6-oz. cyls., works cyl. 12.00 - —
USP, hospitals, cyls., 40-gal. lots, gal .38 - —
cyls 100-gal. lots, gal. .37 - —
cyls., 200-gal. lots gal. .36 - —
Cypress oil, bots lb. 5.30 - —

D

2,4-D tech. bags., dms., c.l., works, frt. equald lb. .40 - —
bgs., dms. l.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D propyl ester, dms., c.l., works lb. .43 - —
dms., l.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum, Batavia, A/E, cs lb No stocks.
dust, bgs lb. No stocks.
E, bgs lb. No stocks.
East India, Batu, bold, bgs lb. .13¾ - .15
nubs and chips, bgs lb. .08¼ - .09¼
black, bold, bgs. lb. .14½ - .16½
unscraped, bgs lb. .13 - .14½
nubs and chips, bgs lb. .12¼ - .13½
pale chips bgs lb. .13 - .15
nubs, bgs. lb. .17¾ - .20
Siam, cs. lb. .35 - .39
Singapore, No. 1, bgs lb. .41 - .45
No. 2, bgs lb. .31¼ - .34
No. 3, bgs lb. No stocks
dust, bgs. lb. .17 - .19
seeds, bgs lb. No stocks.
Dandelion root, bls lb. .28 - —
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - —
fib. dms., t.c.l., works lb .46 - —
DDT, flake or lump, bgs., c.l., works, dlvd lb. .19 - —
bgs., smaller lots, same basis lb. .21 - —
fib. dms., c.l., same basis lb. .20 - —
fib. dms., smaller lots, same basis lb. .22 - —
Powdered DDT 1c. per pound higher.
1-Decanol, tech., dms., c.l., dlvd lb. .41 - —
dms., t.c.l., dlvd. lb. .43 - —
tanks, dlvd. lb. .38½ - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .23½ - —
dms., t.c.l., dlvd lb. .24½ - —
tanks, dlvd. lb. .21 - —
Perfume grade, bots lb. 1.75 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls. lb. .45 - —
Defluorinated phosphate, feed grade, 13% P, paper bags, c.l., t.l., works ton 49.50 - —
Feed grade, 17% P, paper bgs., c.l., t.l., works ton 58.00 - —
18% P, paper bgs., c.l. t.l., works ton 64.10 - —
19% P, paper bags, works, Houston, Tex., c.l. and t.l. per ton 69.50 - —
Prices at defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common, bbls. lb. .10 - .12
Neutral, bbls. lb. .21 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms, c.l., dlvd. E. of Rockies gal. .64½ - .66
dms., t.c.l., same basis gal. .68½ - .77
tanks, dlvd. same basis gal. .48½ - .50
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies gal. .66 - —
dms., t.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies gal. .65½ - —
dms., t.c.l., same basis gal. .70½ - .76¼
tanks, same basis gal. .49½ - —

now—DIISOBUTYLENE for January 1958 delivery



In January Petro-Tex will come on stream with substantial production of high-purity diisobutylene. Our commercial product will be a clear water-white 4 to 1 mixture of

2,4,4-trimethylpentene-1 $H_3C-C(CH_3)_2-CH=C(CH_3)_2$

and 2,4,4-trimethylpentene-2 $H_3C-C(CH_3)_2-C(CH_3)=CH-CH_3$

with these physical properties:

Molecular Weight, average, calculated	112.1
Specific Gravity @ 60°F	0.720 – 0.722
Engler Distillation Range (@ 760 mm Hg)	
Initial	210°F (98.9°C)
90% point	218°F (103.3°C)
95% point	219°F (103.9°C)
Bromine Number	140
Sulfur Content, less than	60 ppm
Reid Vapor Pressure, psi	1.4

Uses include depolymerization to yield isobutylene
Alkylation with phenol toward production of surface active agents
Manufacture of nonyl alcohol by the oxo process

Working samples, detailed technical data and quotations will gladly be sent upon request to us at P. O. Box 2584, Houston 1, Texas.

Petro-Tex

PETRO-TEX CHEMICAL CORPORATION
HOUSTON 1, TEXAS
JOINTLY OWNED BY
FOOD MACHINERY AND CHEMICAL CORPORATION AND TENNESSEE GAS TRANSMISSION COMPANY

Denatured alcohol, ethyl, SD2B, dms., c.l., dlvd. E. of Rockies gal. .64 - —
dms., t.c.l., same basis gal. .69 - .75
tanks, same basis gal. .48 - —
SD3A, dms., c.l., dlvd. E. of Rockies gal. .63 - —
dms., t.c.l., same basis gal. .68 - .74
tanks, same basis gal. .47 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .655 - —
dms., t.c.l., same basis gal. .705 - .765
tanks, same basis gal. .495 - —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .66 - —
dms., t.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .645 - —
dms., t.c.l., same basis gal. .695 - .795
tanks, same basis gal. .485 - —
SD30, dms., c.l., dlvd. E of Rockies gal. .63 - —
dms., t.c.l., same basis gal. .68 - .74
tanks, same basis gal. .47 - —
SD25A, dms., c.l., dlvd. E. of Rockies gal. .66 - —
dms., t.c.l., same basis gal. .71 - .77
tanks, same basis gal. .50 - —
SD40, dms., c.l., dlvd. E. of Rockies gal. .64 - —
dms., t.c.l., same basis gal. .69 - .75
tanks, same basis gal. .48 - —

For anhyd alcohol on above formulas, prices are 7c per gal higher.

West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c differential on tank cars is maintained

d-Desoxyephedrine hydrochloride, bots lb. 24.00 - 25.00
dl-Desoxyephedrine hydrochloride, bots lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l. 100 lbs. 9.38 - —
paper bgs., l.c.l. 100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. 100 lbs. 9.37 - —
light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. 100 lbs. 9.27 - —
white, paper bgs. c.l. 100 lbs. 8.96 - —
paper bgs., l.c.l. 100 lbs. 9.11 - —

Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.

Dextrin potato imp., bgs. lb. .10½ - .11
Dextrose, USP, dms. lb. .19¾ - —
Anhyd., dms. lb. .20¾ - —
Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½ - —
dms., t.c.l., dlvd lb. .16½ - —
tanks dlvd lb. .13 - —
Tech., dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12½ - —
Diacetyl, flavor grade, bots lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works lb. .33 - —
tanks, works lb. .29½ - —
Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms. t.c.l., works lb. .33 - —
tanks, works lb. .29½ - —
o-Dianisidine, fib., dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works, lb. .89¾ - .90
dms., t.c.l., same basis lb. .90¼ - .91
tanks, same basis lb. .88 - —
p-Dibromobenzene bgs., 500-lb. lots. lb. .55 - —
Dibutyl fumarate, dms., c.l. t.l., frt. alld lb. .33 - —
dms., t.c.l., t.t.l., frt. alld lb. .34 - —
tanks, frt. alld lb. .30½ - —
Dibutyl maleate, dms, c.l., t.l., frt. alld lb. .33 - —
dms., t.c.l., t.t.l., dms. frt. alld lb. .34 - —
tanks, frt. alld lb. .30½ - —
Dibutyl phthalate, dms., c.l., dlvd. E. lb. .32½ - —
dms., t.c.l., same basis lb. .33¼ - —
tanks, same basis lb. .30 - —
Dibutyl sebacate, dms., c.l., works, lb. .70 - —
dms., t.c.l., works lb. .70½ - —
tanks, works lb. .68 - —
Dibutyl tartrate dms., works, frt. alld lb. .65½ - —
Dibutylamine, dms., c.l., dlvd lb. .55½ - —
dms., t.c.l., same basis lb. .56½ - —
tanks, same basis lb. .53 - —
2,6-Di-tert-butyl-p-cresol, food grade, dms., t.l., c.l., dlvd lb. 1.20 - —
dms. t.t.l., dlvd. lb. 1.24 - —
Feed grade, to vitamin premix distributors, dms., c.l., t.l., dlvd lb. 1.05 - —
dms., t.c.l., same basis lb. 1.07 - —
Tech., dms., c.l., dlvd lb. .91 - —
dms., t.c.l., dlvd lb. .95 - —
tanks, dlvd. lb. .86 - —
Dicapryl phthalate, dms., c.l., dlvd. lb. .31 - .32
dms., t.c.l., dlvd. lb. .32 - .33
tanks, dlvd lb. .27½ - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., t.c.l., works lb. .63½ - .64
tanks, works lb. .61 - —
Dichlorophenoxyacetic acid (see 2,4-D).
2,5-Dichloroaniline, dms., works lb. .83 - —
o-Dichlorobenzene, dms. c.l., frt. alld. E lb. .12¾ - —
dms., t.c.l, same basis lb. .13¾ - —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. allwd. E lb. .14¼ - —
dms., 2,000 lbs. or more, same basis lb. .19½ - —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½ - —
dms., t.c.l., or t.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichlorothane (see DDT).
2,2-Dichloroethyl ether, c.l., t.l., dlvd. E lb. .15½ - —
t.c.l., t.t.l., same basis lb. .16½ - —
tanks, same basis lb. .13 - —
Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., t.c.l., works lb. .06 - —
tanks, works lb. .03 - —
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., t.c.l., works lb. .55 - —
tanks, works lb. .52 - —
Dicyclohexyl phthalate, fib., dms., c.l., works, frt. alld lb. 58¼ - .59
fib. dms., t.c.l., same basis lb. .59¼ - .60
Didecyl phthalate, dms., c.l., works. lb. .34 - —
dms., t.c.l., same basis lb. .35 - —
tanks, same basis lb. .31½ - —
Dieldrin, dms., frt. alld lb. 1.80 - —
dms., t.c.l., frt. alld lb. 1.83 - —
Diethanolamine, dms. c.l., dlvd. E. lb. .27 - —
dms., t.c.l., same basis lb. .28 - —
tanks, same basis lb. .24½ - —
Diethyl barbituric acid (see Barbital)
Diethylbenzene, dms., t.l., frt. alld. lb. .16½ - —
dms., t.t.l., same basis lb. .18½ - —

Diethyl carbonate, dms., c.l., frt. alld. lb. .47 - —
dms., t.c.l., same basis lb. .48 - —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69¼ - —
dms., t.c.l., dlvd lb. .70½ - —
tanks, dlvd lb. .67 - —
Diethyl oxalate dms. c.l., frt. alld. lb. .42 - —
dms., t.c.l., same basis lb. .43 - .45
tanks, same basis lb. .40 - —
Diethyl phthalate dms. c.l., dlvd. lb. .30 - .30½
dms., t.c.l. dlvd lb. .31 - .31½
tanks, dlvd lb. .27½ - .28
Diethyl sulfate, dms., c.l., works lb. .19½ - —
dms., t.c.l., works lb. .20¼ - —
tanks, works lb. .17½ - —
Diethylamine, dms., c.l., dlvd E lb. .52 - —
dms., t.c.l., same basis lb. .53 - —
tanks, same basis lb. .49½ - —
N,N-Diethylaniline dms., c.l., frt. alld lb. .57 - —
dms., t.c.l. same basis lb. .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene dms. t.l., frt. alld. dms., t.c.l. same basis lb. .18½ - —
Di-2-ethylhexyl adipate (see Dioctyl adipate)
Di-2-ethylhexyl phthalate (see Dioctyl phthalate)
Diethylene glycol dms. c.l. dlvd. E lb. .17¾ - —
dms., t.c.l. same basis lb. .18¾ - —
tanks, same basis lb. .15¼ - —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½ - —
dms., t.c.l., works lb. .52¼ - —
lb. .16½ - —
Diethylene glycol monobutyl ether, lb. .30¾ - —
dms., t.c.l., works lb. .31½ - —
tanks, dlvd E lb. .28¾ - —
Diethylene glycol monobutyl ether acetate dms. c.l., works. lb. .30¼ - —
dms., t.c.l., works lb. .31 - —
tanks dlvd E lb. .28¼ - —
Diethylene glycol monoethyl ether, dms. c.l., dlvd lb. .22½ - —
dms., t.c.l. dlvd lb. .23½ - —
tanks, dlvd lb. .20 - —
Diethylene glycol monoethyl ether acetate dms. c.l., works. lb. .27¼ - —
dms., t.c.l. works lb. .28 - —
tanks, dlvd E lb. .25¼ - —
Diethylene glycol monomethyl ether, dms. c.l. dlvd lb. .20½ - —
dms., t.c.l. dlvd lb. .21½ - —
tanks, dlvd lb. .18½ - —
Diethylenetriamine dms. c.l. dlvd. E lb. .44 - —
dms., t.c.l. dlvd. E lb. .45 - —
tanks, dlvd. E lb. .41½ - —
Diethylstilbestrol USP bots., 10-kilo lots kilo 100.00 - 147.50
bots., 1-kilo lot kilo. 110.00 - 152.50
Digitalis leaves, USP dom. dms lb 1.20 - —
Digitoxin, USP, bots gram. 4.35 - 4.75
Diglycol laurate dms lb. .32¾ - .34
Diglycol stearate, dms. ton lots lb. .26 - .28
Diglycolic acid, bgs., works lb. .14 - —

Dihexyl sebacate, dms. c.l., works. lb. .64 - —
dms., t.c.l., works lb. .64½ - .65
tanks, works lb. .62 - —
Dihydrazine sulfate dms. works lb 1.10 - 1.25
Dihydrostreptomycin hydrochloride, bulk gram. .0850 - 0875
Dihydrostreptomycin sulfate bulk, gram. .0850 - 0875
1,2-Dihydroxy anthraquinone, dms., works lb 2.75 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane pure, dms lb 2.55 - —
tech. dms lb 1.09 - —
Di-isobutyl ketone dms. c.l. dlvd. lb. .17 - —
dms., t.c.l. dlvd lb. .18 - —
tanks, dlvd lb. 14½ - —
Di-isobutyl phthalate, dms., c.l., dlvd E lb. 31½ - —
dms., t.c.l. same basis lb. .32½ - —
tanks, same basis lb .29 - —
Di-isobutylene, dms. c.l., dlvd E. lb .10 - —
dms., t.c.l., dlvd E lb. 11½ - —
tanks, dlvd. E lb .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .31 - —
dms., t.c.l., same basis lb. .32 - —
tanks, same basis lb. .28½ - —
Di-iso-octyl sebacate, dms., c.l., works lb. .63½ - —
dms., t.c.l., works lb. .64½ - —
tanks, works lb. .61 - —

NOW!

Cowles

DIETHYLTOLUAMIDE (DETAMIDE 95)

Cowles is now on stream with the U. S. Army Quartermaster and Department of Agriculture discovery diethyltoluamide, claimed by scientists to be the best repellent yet for mosquitos, flies, chiggers and ticks.

Cowles DETAMIDE 95 (minimum assay meta isomer—95%) is in production now.

Cowles DETAMIDE 85 (minimum assay meta isomer—85%) will be available soon.

Highly resistant to perspiration and normal wear-off, Cowles DETAMIDE is a colorless liquid with a pleasant cosmetic fragrance.

Full technical information and prices upon letterhead request.

DETAMIDE 95 is packed in 5 gal. and 55 gal. drums—available one drum to a carload.

Cowles

ORGANIC CHEMICAL DEPARTMENT

CHEMICAL COMPANY

Cleveland 3, Ohio

Di-Isopropanolamine—Dyes, Coaltar

Di-isopropanolamine, dms., c.l., dlvd.	lb.	.24½-	—
dms., l.c.l., same basis	lb.	.25½-	—
tanks, same basis	lb.	.22 -	—
Di-isopropylamine dms., c.l., dlvd. E. of Rockies	lb.	.50½-	—
dms., l.c.l., same basis	lb.	.51½-	—
tanks, same basis	lb.	.48 -	—
Dillseed, dewhiskered, bgs.	lb.	.13 -	—
Nat. bgs	lb	.08	—
Dillseed oil, bots	lb	2 80	4.25
Dillweed oil, dom., bots., dms.	lb.	3.25 -	3.75
Dimethyl anthranilate, cns	lb.	4.85 -	5.10
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd	lb	1.225 -	—
dms., l.c.l., dlvd	lb	1.235 -	—
tanks, dlvd	lb.	1.20 -	—
70% dms. c.l. dlvd., 100% basis, contained amines	lb.	.68½-	—
dms., l.c.l., dlvd. 100% basis	lb.	.69½-	—
tanks, dlvd. 100% basis	lb.	.66	—
Dimethyl hydroquinone, dms.	lb.	2.00 -	2.20
Dimethyl phthalate, dms., c.l., works	lb.	.31 -	—
dms., l.c.l., works	lb.	.32 -	—
tanks, works	lb.	.28½-	—
Dimethyl sebacate, dms., c.l., works.	lb	1.275 -	—
dms., l.c.l., dlvd	lb.	1.285 -	—
tanks, works	lb	1.25 -	—
Dimethyl sulfide, dms. c.l., works.	lb.	.16½-	—
dms., l.c.l., works	lb.	.17 -	—
tanks, works	lb	.15 -	—

Dimethyl sulfate, 55-gal. ret. dms., c.l., works	lb.	.15 -	—
55-gal. ret. dms., l.c.l., works	lb.	.16 -	—
10-gal. ret. dms., l.c.l., works	lb.	.16½-	—
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis	lb.	.42 -	—
dms., l.c.l., frt. equald, 100% basis	lb.	.42½-	—
Dimethylamine, tanks, frt. equald., 100% basis	lb.	.33 -	—
Dimethylamine 40% soln., dms., c.l., frt. equald, 100% basis	lb.	.39 -	—
Dimethylamine, 40% soln., dms., l.c.l., frt. equald, 100% basis	lb.	.39½-	—
tanks, frt. equald, 100% basis.	lb.	.33 -	—
N,N-Dimethylaniline, dms., c.l., frt. alld	lb.	.32 -	—
dms., l.c.l., frt. alld.	lb	.33 -	—
tanks, frt. alld	lb.	.30 -	—
N,N-Dimethylformamide, dms., works	lb.	.34 -	.39
tanks, works	lb.	.32 -	—
2,4-Dinitroaniline dms. 1,000-lb. lots, frt. equald	lb.	.68 -	—
dms., smaller lots, frt equald	lb.	.71 -	—
Dinitroaniline orange toner, CP bbls., dlvd N. of Tenn. and N. C., E. of Miss. R., including Davenport, and E. of Minneapolis, Rock Island, St. Louis, St. Paul	lb.	1.50 -	—
m-Dinitrobenzene, 85°C., dms	lb.	.22 -	—
89° C., dms	lb.	.24 -	—

2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld E	lb.	.15¼-	—
dms., l.c.l. frt. alld. E	lb.	.15¾-	—
tanks, frt. alld E	lb.	.15 -	—
2,4-Dinitrochlorobenzene crystallizing at 48°C. dms., c.l., frt. alld. E	lb.	.20¼-	—
dms., l.c.l. frt. alld E	lb.	.20¾-	—
tanks, frt alld E	lb.	.20 -	—
2,4-Dinitrophenol, bbls	lb.	.37 -	—
2,4-Dinitrotoluene, oily dms.	lb.	.11 -	—
Refd. 63°C., dms	lb.	.23 -	—
Dioctyl adipate dms. c.l. works.	lb.	.42½-	—
dms., l.c.l. works	lb.	.43½-	—
tanks, works	lb.	.40 -	—
Dioctyl phthalate dms., c.l., frt. alld	lb.	.30½-	.31
dms., l.c.l., frt alld	lb.	.31½-	.32
tanks, frt. alld	lb.	.28 -	.28½
Dioctyl sebacate dms. c.l., works.	lb.	.60½-	—
dms., l.c.l., works	lb.	.61½-	.62½
tanks works, dlvd	lb.	.58 -	.58½
1,4-Dioxane, dms. c.l. works	lb.	.28¾-	—
dms., l.c.l., works	lb.	.29¼-	—
tanks works	lb.	.27 -	—
Dipentaerythritol, bgs., l.c.l., dlvd. E	lb.	.35 -	—
Dipentene, dest.-dist. dms., c.l., works	gal.	.47 -	—
dms., l.c.l. works	gal.	.52 -	—
dms., l.c.l. ex whse	gal.	.62 -	—
Dipentene steam- dist., dms., c.l., works, south	gal.	.59 -	—
dms., c.l., dlvd New York	gal.	.67 -	—
tanks, works, south	gal.	.45 -	—
Dip oil (see Tar acid oil)			
Diphenyl, bgs., c.l., t.l., works	lb.	.17¼-	—
bgs., l.c.l., works	lb.	.19 -	—
tanks, works	lb.	.16 -	—

Diphenyl oxide, perfume grade, cns.	lb.	.65	.85
Diphenyl phthalate dms., c.l., works.	lb.	.51¾-	—
dms., l.c.l., works	lb.	.53¾-	—
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald	lb.	.33 -	—
bgs., l.c.l., same basis	lb.	.35 -	—
Refd., fused, tanks, same basis	lb.	.31 -	—
Tech., fused, tanks, same basis	lb.	.30 -	—
Diphenylguanidine bgs. dms., ton lots, frt. alld	lb.	.54 -	—
bgs., smaller lots, frt. alld	lb.	.55 -	—
Diphenylhydantoin-sodium USP	dms	lb. 5.00	5.60
Dipropylene glycol dms. c.l., frt. alld	lb.	.17¾	—
dms., l.c.l., frt. alld.	lb.	.18¾	—
tanks, frt. alld.	lb.	15¼	—
Dipropylene glycol methyl ether, dms., c.l. dlvd E	lb.	.20	—
dms., l.c.l. same basis	lb.	.21	—
tanks, same basis	lb	18½	—
Dithiodibenzoic acid dms. 1,000-lb. lots works	lb.	1.45	—
Di-o-tolylguanidine dms. ton lots, frt. alld	lb.	.64 -	—
dms., smaller lots, frt. alld	lb.	.65 -	—
Divi-divi, 45% tannin, bgs. bls. c.i. US ports ex dock	ton	76.00	Nom.
Divinylbenzene 20-25% dms., c.l., works, frt. equald	lb.	.20	—
dms., l.c.l. same basis	lb.	.21	—
tanks, same basis	lb.	.19	—
Divinylbenzene, 50-60% dms. c.l., works, 100% basis	lb.	1.00	—
dms. l.c.l. works 100% basis	lb.	1.05	—
Dodecylbenzene dms. c.l., frt. alld	lb.	.14½	—
tanks, same basis	lb.	.12½	—
dms. l.c.l., same basis	lb.	.15½	—

Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb lots, dlvd:—

Blue, FD&C, No. 1	lb.	15.65	-17.60
No. 2	lb.	15 65	-17 60
Green FD&C, No. 1	lb.	15.65	-17.60
No. 2	lb.	19.60	-22.85
No. 3	lb.	21.30	-35 90
Red, FD&C No. 1, cns	lb	5.90	7.85
No. 2	lb	3.30	4.10
No. 3	lb.	19.60	-22.85
No. 4	lb	5.55	7.50
Violet, FD&C, No. 1, cns	lb.	15.65	-17.60
Yellow FD&C No. 1 cns	lb.	9.15	-11.05
No. 5	lb.	3.30	4.10
No. 6	lb.	3.30	4.10

Dyes, coaltar, certified colors for drugs and cosmetics, 200 lb and 1 lb. lots, dlvd:—

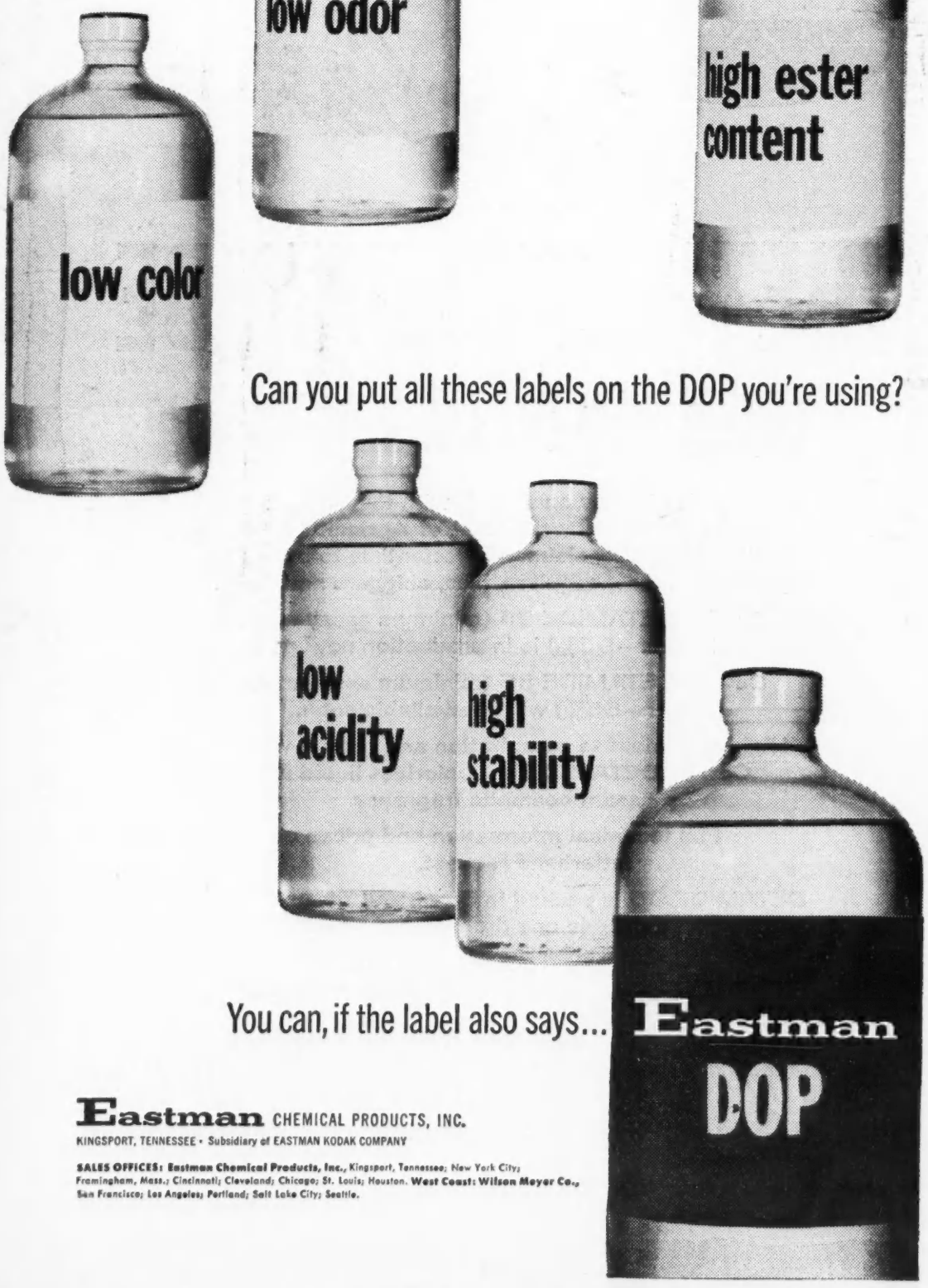
Black, D&C, No. 1	lb.	10.50	-10.95
Brown, D&C, No. 1	lb.	15.65	-16 10
Green, D&C, No. 5	lb.	15.65	-16 10
No. 6	lb.	15.65	-16.10
No. 7	lb.	14.35	-14.80
Orange, D&C, No. 3	lb.	10.50	-10.95
No. 4	lb.	19.60	-20.05
No. 5	lb	5.25	5.70
Red, D&C, No. 17	lb.	10.50	-10.95
No. 18	lb.	23.55	-24.00
No. 19	lb.	15.00	-15.45
No. 21	lb	3.10	3.60
No. 22	lb.	10.50	-10.95
No. 28	lb.	24.20	-24.65
No. 33	lb.	17.00	-17 45
Violet, D&C, No. 2	lb.	15.65	-16.10
Yellow, D&C, No. 7	lb.	10.50	-10.95
No. 8	lb.	10.50	-10.95
No. 10	lb	13.05	-13.50
No. 11	lb	13.05	-13.50

Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb lots dlvd:—

Blue, Ext. D&C, No. 1, cns	lb.	15.65	-16.10
Green, Ext. D&C, No. 1, cns	lb.	15.65	-16 10
Red, Ext., D&C, No 1, cns	lb.	13.05	-13.50
Yellow, Ext. D&C, No. 1, cns	lb	10 50	-10.95

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype), contract, dlvd. No

20	Chrysoidine Y, dustless	lb.	.89	—
27	Fast light, orange 2G	lb.	1.29	—
31	Phloxine 2G	lb.	1.05	—
36	Yellow 2G	lb	1.18	—
40	Orange R extra, conc.	lb.	1.52	—
57	Fuchsine 6B	lb.	1.55	—
79	Scarlet 2R	lb.	1.16	—
151	Orange AD	lb.	.79	—
161	Orange	lb.	.94	—
176	Fast red A	lb.	1.39	—
179	Rubine XX, conc.	lb.	1.47	—
180	Blue F4B	lb.	1.31	—
185	Brilliant scarlet 3RN, conc.	lb.	1.20	—
202	Chrome blue black R, conc.	lb.	1.07	—
203	Chrome black T	lb.	1.03	—
208	Fast blue SR	lb.	1.30	—
216	Chrome red B	lb.	1.09	—
234	Brown Y	lb.	1.27	—
246	Blue black, extra, conc.	lb.	1.37	—
275	Milling red 3R, conc.	lb.	1.91	—
289	Navy blue 3R, conc.	lb.	1.70	—
299	Black F, conc	lb.	2.19	—
304	Neutral black 2B, conc	lb.	2.61	—
326	Fast scarlet 4BNC	lb.	2.12	—
332	Bismark brown RX, conc., dustless	lb.	1.37	—
365	Brilliant yellow conc.	lb.	3.11	—
382	Scarlet B	lb.	2.60	—
401	Diazo black BHD	lb.	.93	—
406	Blue 2B, extra conc.	lb.	1.53	—
419	Red FC	lb.	1.45	—
420	Brown M	lb.	1.40	—
448	Red 4BX conc.	lb.	1.69	—
518	Diamine sky blue FF, extra, conc	lb.	1.95	—
561	Brown B	lb.	2.89	—
581	Black EB, 200%	lb.	1.33	—
593	Green BY, conc	lb.	1.02	—
596	Yellow brown K, extra	lb.	1.26	—
620	Yellow 2G	lb.	1.31	—
639	Fast Yellow GG	lb.	2.32	—
640	Yellow XX	lb.	2.30	—
655	Yellow OX	lb.	2.64	—
657	Malachite green V, crystals.	lb.	2.73	—
662	Brilliant green G	lb.	3.62	—
667	Milling green 6B, conc.	lb.	4.78	—
671	Blue EG	lb.	1.85	—
691	Crystal violet powder	lb.	2.15	—
698	Violet 6BN powder	lb.	2.25	—
720	Brilliant blue BBG	lb.	2.44	—
729	Blue B, extra conc.	lb.	3.61	—
749	Red BX	lb.	4.76	—
800	Chinoline yellow ZSS	lb.	2.67	—
814	Yellow NN, conc	lb.	3.67	—
841	Safranine GF extra, conc	lb.	4.11	—
860	Induline base ZM	lb.	1.07	—
865	Nigrosine J	lb.	4.76	—
922	Blue GXX	lb.	2.22	—
978	Black GXCF conc.	lb.	.38	—
1034	Alizarin red SC	lb.	3.31	—
1078	Alizarin syanine green base Z	lb.	6.13	—
1085	Alizarin blue black B	lb.	3.02	—
1096	Golden orange GFD, single paste	lb.	2.58	—
1099	Dark blue BO, single paste.	lb.	2.28	—
1101	Jade green N supra, double paste	lb.	1.55	—
1106	Blue RS, double paste	lb.	3.85	—
1113	Blue, BLFD, double paste	lb.	2.92	—
1150	Olive R, Single paste dms., dlvd.	lb.	1.42	—



Eastman CHEMICAL PRODUCTS, INC.

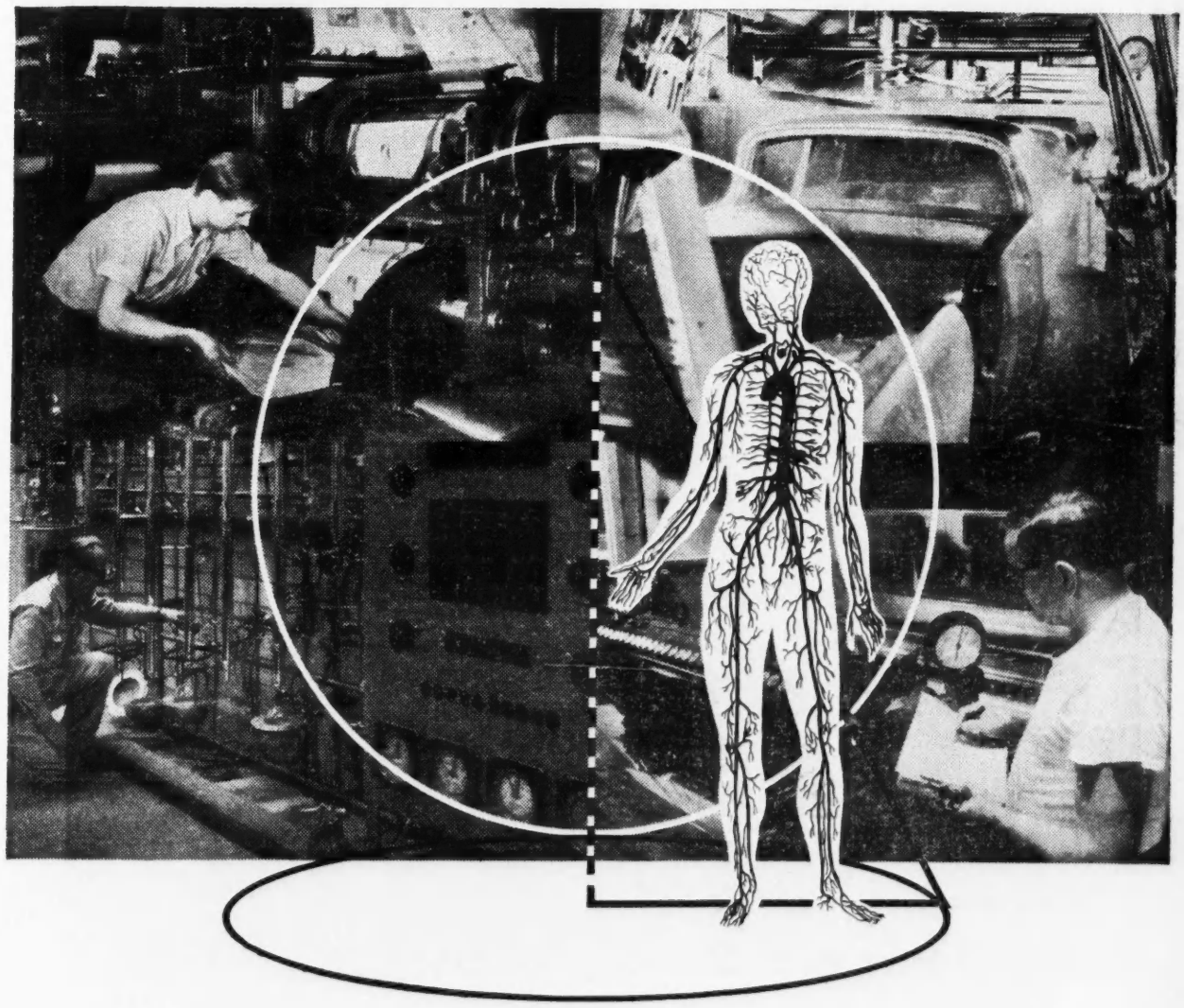
KINGSPORT, TENNESSEE • Subsidiary of EASTMAN KODAK COMPANY

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tennessee; New York City; Framingham, Mass.; Cincinnati; Cleveland; Chicago; St. Louis; Houston. **West Coast: Wilson Meyer Co.,** San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale or prototype) contract dlvd No
1151 Brown R single paste lb. 2.29 - —
1171 Indigo synthetic, 20% paste lb. .31 - —
1217 Orange RD, double powder. lb. 4.60 - —
p-4 Brown PG lb. 3.00 - —
p-14 Brown EB lb. 2.16 - —
p-24 Gray L lb. 2.08 - —
p-80 Diazo brilliant scarlet ROAD lb 3.62 - —
p-202 Diazo black VJ, conc lb. 2.48 - —
p-244 Brilliant scarlet BN lb. 1.70 - —
p-313 Naphthol SWF lb. 1.60 - —
Dyes coaltar oil-soluble, 100-lb drums, dlvd, No.
24 Oil orange Z-7078 lb 1.06 - —
73 Oil scarlet BL lb. 1.70 - —
1073 Oil violet ZIRS lb. 6.81 - —
1078 Alizarin green, CG lb. 3.53 - —
1080 Oil violet special Z lb 6.81 - —
Oil black ZBC lb. 4.46 - —
Oil black ZBD lb. 3.03 - —
Oil black ZHH lb. 4.61 - —
Oil black ZMM lb 6.52 - —
Oil blue ZN lb. 8.02 - —
Oil blue ZV lb. 4.95 - —
Oil orange ZMG lb 1.32 - —
Oil red N-1700 lb 1.76 - —
Oil yellow ZG conc lb. 6.33 - —
Dyes coaltar spirit soluble 100 lb drms, dlvd No
p-517 Spirit yellow 2R conc lb 4.62 - —
p-520 Spirit orange ZR, conc lb 5.87 - —
Spirit black RB lb 2.95 - —
Spirit brown ZG lb 5.30 - —
Spirit red B conc lb 6.41 - —

E

Echinacea root, bls lb 1.10 - —
Egg albumin (see Albumin).
Egg yolk, dried, dom., bbls lb. 1.23 - 1.25
Canners bbls lb .06 .06½
Elm bark, grinding, bls lb. .30 .32
Powd., bbls., bxs. lb. .45 - —
Select, bundles lb 75 —
oz. 48.25 49.00
Emetine hydrochloride USP, bots.
Endrin, tech, dms, dlvd, 100% basis lb. 3.75 - —
Eosine red toner, bbls., works lb. 1.75 - —
Ephedrine, syn., USP, anhyd., bots, 100-oz lots oz. .98 1.00
hydrous bots, 100-oz lots oz. .92 —
Ephedrine hydrochloride, NF, tins, 100-oz. lots oz. .62 .72
Ephedrine sulfate, USP, cryst., tins, 100-oz. lots oz. .62 75
Powd., tins 100-oz lots oz. .62 72
Epichlorohydrin dms, c.l. dlvd lb. .35½ - —
dms, t.c.l. dlvd lb. .36½ - —
tanks dlvd lb. .33 —
1-Epinephrine base syn. USP bots., 100 gram lots gram. .60 - —
Epsom salt (see Magnesium sulfate)
Erigeron oil, cns. lb. 6.00 - 7.50
Ergot, NF, dms., tin-lined lb. 1.60 - —
Eserine salicylate, bots oz. 72.50 -84.00
Eserine sulfate bots. oz. 87.75 - —
Ester gum gum-rosin type, dms., c.l. dlvd., Ill., Md., Ky., Mich. Mid-Atl. States, N. E States, Minneapolis, N. C. Ohio St. Louis, St. Paul, Va. W Va lb. .14½ .16
Ester gum wood-rosin type, dms., c.l. same basis lb. .13 .16
Ether (see specific product)
Ethyl acetate, nat. ferment., 85-88%, dms. c.l., frt. alld lb. .15 - —
dms., t.c.l. dlvd lb. .16 - —
tanks dlvd lb. .12½ - —
95-98%, dms., c.l., dlvd lb. .15¼ - —
dms., t.c.l., dlvd lb. .16¼ - —
tanks dlvd. lb. .12¾ - —
99%, dms., c.l. dlvd lb. .15½ - —
dms., t.c.l. dlvd lb. .16½ - —
tanks dlvd lb. .13 - —
syn., 85-88%, dms. c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12½ - —
95-98%, dms., c.l., dlvd lb. .15¼ - —
dms., t.c.l., dlvd lb. .16¼ - —
tanks, dlvd lb. .12¾ - —
99%, dms., c.l., dlvd lb. .15½ - —
dms., t.c.l., dlvd lb. .16½ - —
tanks, dlvd lb. .13 - —
Ethyl acetoacetate dms., c.l., dlvd. lb. .58½ - —
dms., t.c.l., dlvd lb. .59½ - —
tanks, dlvd lb. .56 - —
Ethyl acrylate dms. c.l., t.l., dlvd. lb. .36 - —
dms., t.t.l. dlvd lb. .37 - —
tanks, dlvd lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms., c.l. dlvd E of Rockies. gal. 20.58 - —
dms., t.c.l., same basis gal. 20.63 - 20.69
tanks, same basis gal. 20.42 —
tax-free dms., c.l. dlvd. E. of Rockies gal. .63 - —
dms., t.c.l., same basis gal. .68 - .74
tanks, same basis gal. .47 —
Ethyl alcohol, absolute, 200 pf. tax paid dms. dlvd E of Rockies. gal. 21.70 —
dms., t.c.l. same basis gal. 21.75 - 21.81
tanks, same basis gal. 21.54 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl).
Ethyl aminobenzoate USP (see Benzocaine)
Ethyl amyl ketone dms, c.l., dlvd. lb. .20 - —
dms., t.c.l. same basis lb. .21 - —
tanks, same basis lb. .17½ - —
Ethyl benzoate, bots lb. .90 - —
Ethyl bromide tech., 98%, dms., c.l. frt. alld. E lb. .46 - —
dms., t.c.l. frt. alld E lb. .48 - —
tanks, frt. alld E lb. .43 - —
2-Ethyl butyl alcohol, dms., c.l., dlvd. works lb. .30 - —
dms., t.c.l., works lb. .30¾ - —
tanks, works lb. .28 - —
Ethyl butyl ketone dms., c.l., t.l., works lb. .36 - —
dms., t.c.l., t.t.l. works lb. .36¾ - —
tanks, works lb. .34 - —
Ethyl butyrate, works lb. .90 - 1.00
Ethyl carnamate (see Urethane)
Ethyl cellulose, vis. 7 cps., bgs., 5,000-lb lots or more, works lb. .70 —
bgs., smaller lots works lb. .72 .80
Vis. 10, 20, 50, 100, 150 cps., bgs., 2,000-lb lots or more, works, lb. .65 .70
bgs. smaller lots, works lb. .67 .81
Ethyl chloride tech., cyls., works, lb. .20 .22
dms., works lb. .18 .20
tanks, works lb. 10 —
Ethyl cinnamate, cns lb. 3.35 - 3.50
Ethyl ethanolamines, mixed, dms., c.l. dlvd. E lb. .43½ - —
dms., t.c.l. dlvd. E lb. .44½ - —
tanks, dlvd. E lb. .41½ - —
Ethyl ether, absolute, ACS, dms. lb. .27 - —
Anesthesia, USP, hospitals, 1-lb cns lb. 1.01 - —
½-lb. cns. lb. 1.09 - —
¼-lb. cns. lb. 1.21 - —
Ethyl ether, indust., dms., c.l., dlvd. lb. .13 - —
dms., t.c.l., dlvd. E lb. .14 - —
tanks, dlvd. E lb. .10½ - —
Ethyl gallate dms, 100 to 2,000-lb. lots lb. 3.90 - 4.40
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., t.c.l., t.t.l. dlvd. E lb. .38 - —
tanks, dlvd E lb. .34½ - —
(2-Ethyl hexoic acid 1c. higher W. of Rockies.)
2-Ethylhexyl alcohol, dms. t.c. dlvd. lb. .24¼ - —
dms., t.c.l., dlvd lb. .25¼ - —
tanks, dlvd lb. .21¾ - —
Ethyl iodide, cbys., works lb 3.30 - —
Ethyl methacrylate dms. c.l., frt, equald lb. .52 - —
dms., t.t.l. frt. equald lb. .52½ - —
tanks, frt. equald lb. .50 - —
Ethyl morphine hydrochloride, USP. bots oz 11.85 - —
Ethyl nitrite (see Nitrous ether)
Ethyl oenanthate, dms lb. 1.20 - 1.50
Ethyl oxalate (see Diethyl oxalate)
Ethyl silicate, dist (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO_2, dms., c.l., dlvd lb. .44½ - —
dms., t.c.l., dlvd. lb. .45½ - —
tanks, dlvd lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works, lb 1.02 - —
N-Ethyl-o-toluidide, bbls. lb. .88 - —
Ethylamine (see Mono, Di- or Tri-).
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., t.c.l., frt, alld lb. .58 - —
tanks, frt. alld. lb. .55 - —
Ethylbenzene, 99% dms., c.l. or t.l., frt, equald lb. .15 - —
dms., t.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½ - —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., t.c.l., works lb. .30¾ - —
Ethylene, contract, ref'y gate lb. .0473 - .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½ - —
dms., t.c.l. frt equald lb. .31½ - —
tanks, frt equald lb. .28½ - —
Ethylene dichloride dms., c.l., dlvd. lb. .11½ - —
dms., t.c.l., same basis lb. .12½ - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb higher.
Ethylene glycol, indust., dms., c.l., dlvd E lb. .16 - —
dms., t.c.l., same basis lb. .17 - —
tanks, same basis lb. .13½ - —
Ethylene glycol monobutyl ether, dms., c.l., dlvd E lb. .22 - —
dms., t.c.l., dlvd E lb. .23 - —
tanks, dlvd. E lb. .19½ - —
Ethylene glycol monoethyl ether, dms., c.l., dlvd E lb. .21 - —
dms., t.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18½ - —
Ethylene glycol monoethyl ether acetate dms. c.l. dlvd E lb. .19½ —
dms., t.c.l., dlvd. E lb. .20½ - —
tanks, dlvd. E. lb. .17 - —
Ethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 —
dms., t.c.l., dlvd E lb. .22 —
tanks, dlvd. E lb. .18½ - —
Ethylene glycol monomethyl ether acetate, dms. c.l. dlvd. E lb. .29 —
dms., t.c.l., dlvd E. lb. .29¾ - —
tanks, dlvd. E. lb. .27 - —
Ethylene glycol monostearate triple pressed, dms lb. .33 35
Ethylene oxide, dms., c.l., dlvd E. lb. .21½ —
dms., t.c.l., dlvd E. lb. .24½ - —
tanks, dlvd. E lb. .15½ - —
Ethylene trichloride (see Trichloroethylene)
Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms. t.c.l., dlvd E., 100% basis lb. .43 - —
tanks, dlvd. E. 100% basis lb. .40 - —
Ethylvanillin 100-lb fib dms. 500-lb lots and over lb 6.40 —
100-lb fib dms. smaller lots lb 6.65 6.95
Eucalyptol, USP, cns, dms lb. 1.40 - 1.65
Eucalyptus oil, NF rectified 70-80% dms lb. .70 - .80
NF, rectified, 80-90%, dms lb. .88 - .95
Eugenol, USP, dms. lb. 2.05 - 2.20
Euphorbia herb bls lb .15 17



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When organic coatings and printing inks have places to go, like on automobile bodies and printing presses, it's the job of their oxygenated solvents to take them there and apply their films. Then, these remarkable vehicles evaporate at the precise rate required for the particular end use.

Celanese, a leading supplier of these industrial solvents, is conducting a continuing study into the problems of industry so that solvents of even greater usefulness and economy can be developed. This program has already produced an important family of specialized solvents for the paint and coatings industry. Manufacturers can now replace costlier fluids with lower cost solvents that offer greater dissolving power, better flow, superior blush resistance, improved all-around performance. Special attention is even paid to the correct flash point.

Researching into the problems of industry . . . applying the findings to practical solutions to improve manufacturing efficiency . . . this is another example of Celanese research and product development teams working hand-in-hand to supply industry with basic and intermediate materials that meet specific requirements. Celanese Corporation of America, Dept. 556-K, Chemical Division, 180 Madison Ave., N. Y. 16. Celanese®

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Basic reasons . . . . . for improved products

Acids	Functional Fluids	Polyols	Agricultural	Paper
Alcohols	Gasoline Additives	Plasticizers	Automotive	Pharmaceutical
Aldehydes	Glycols	Salts	Aviation	Plastics
Anhydrides	Ketones	Solvents	Building	Surface Coatings
Esters	Oxides	Vinyl Monomers	Electrical	Textiles

Celanese CHEMICALS

F

F acid, crude, paste, bbls., works lb 2.10 - —
Feldspar, 140-200 mesh bulk, c.l., works ton.19.50 - —
Feldspar in bags $3 per ton higher
Fennel oil, sweet, USP, cns lb. 2.75 - 2.95
Fennel seed, Argentine, bgs lb. .16 - —
Czech, medium, bgs lb. .09 - —
Indian, light, bgs lb .15½- —
Rumanian, bgs. lb. .12 - —
Fenugreek seed, Indian, bgs. lb. .10½- —
Moroccan bgs. lb. .10½- —
Ferric acetate, liq. 28° bbls., c.l., works lb. .09 - —
bbls., l.c.l., works lb. .09¾- —
Soln., USP IX, cbys lb. .16 - —
USP IX, djns lb .17 - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 8.50 - —
Ferric chloride, anhyd., indust., cryst., bbls., c.l., works, 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs 5.75 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 8.25
42° Be., sewage grade, tanks, frt. equald, 100% basis. 100 lbs. 3.75 - —
USP, cryst., dms., works lb. .07½- .09
Ferric citrate, gran., dms lb .86 - —
Ferric hypophosphite NF, dms lb 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt alld lb. .25¾- —
Ferric oxalate, gran., dms lb. .89 - .91
Ferric oxides (see Iron oxides).
Ferric phosphate, NF, soluble, gran., pearls, cs lb. .64 - .67
Ferric pyrophosphate NF VII, soluble, powd. gran., pearls, dms., 10,000-lb. lots lb. .40½- —
Ferric resinate, 6¾% Fe., dms., ton lots frt. alld lb. .33 - —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld lb .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton.35.25 - —
bgs., l.c.l., works ton.36.25 -42.25
bulk, c.l., works ton.33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 .68
Green, pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran- dms lb. .27½- .29½
Ferrous gluconate, USP, dms. lb. .76 - —
Ferrous sulfate, gran., bgs., c.l., works ton.34.50 - —
Ferrous sulfate, gran., bgs., l.c.l., dlvd. Metropolitan area. 100 lbs. 3.35 - 4.25
bbls., c.l., works ton.40.00 - —
bulk, c.l., works ton.27.00 - —
USP, cryst., 5bls., dms lb. .09½- .10
Fir, balsam, Canada, bbls. gal.32.00 - —
Oregon, bbls gal. 4.00 - 4.10
Fir oil, Canada, cns lb. 4.80 - —
Fish oil, refd., alkali, dms. lb. .1500- .1550
Kettle-bodied, dms. lb. .1730- .1780
Light-pressed, dms. lb. .1350- .1400
tanks lb. .1200- —
Fishliver oil, high potency, 100,000 A units per gram, dms, 1,000,000 units. .14 - —
200,000 A units per gram., dms, 1,000,000 units, .15½- —
500,000 A units per gram, dms., 1,000,000 units. .16 - —
Prices above are based on the USP XIV method of conversion, Morton Stubbs Corrected E = 1900.
Fishmeal, dom., menhaden, 60% protein grd., bgs., Chesapeake Bay area ton.132.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Chesapeake Bay area ton.128.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots, fib. dms., kilo-lots or more gram. 1.20 - —
10% feed grade, fib dms., 15 kilos or more kilo.86.00 - —
Formaldehyde, 37%, (inhibited, 7 to 8% methanol), USP, dms., c.l. dlvd lb. .0715- —
tanks, dlvd lb .0450- —
Formaldehyde, 37%, (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0740- —
tanks, dlvd lb. .0475- —
Methanol-free (uninhibited), tanks, dlvd lb. .0420- —
Formic acid, 85%, cbys., c.l., works, lb. .1370- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls. lb. .60 - .61
Fuller's earth, bgs., c.l., Ill. mines, ton.19.00 - —
Insecticide grade, dried, powd., bgs., c.l., Ga. or Fla. mines ton.17.50 - —
calcined, bgs., c.l., same basis. ton.20.00 -21.75
Fuller's earth, oil-bleaching grade, 100-mesh, bgs., c.l., same basis ton.16.30 -17.00
200-mesh, bgs., c.l., same basis. ton.17.50 -18.00
Spent, bgs., c.l. ship. point ton 4.50 5.00
Fumaric acid, tech. bgs. dms., c.l., frt. alld. E. lb. .27¼- —
bgs., l.c.l., same basis lb. .28¼- —
Prices of fumaric acid 1½c. per lb. higher west of Denver.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E. lb. .12 - —
tanks, dlvd. W lb. .13 - —
Furfuryl alcohol, cns., works lb .29 - —
dms., c.l., Memphis, Tenn lb. .20 - —
dms., c.l., Newark, N. J. lb. .21½- —
dms., l.c.l., Memphis, Tenn lb. .21 - —
dms., l.c.l., Newark, N. J lb. .22½- —
tanks, Memphis, Tenn. lb. .184 - —
Fusel oil, refd. dms., c.l., dlvd lb. .18 - —
dms., l.c.l., dlvd. lb. .19 - —
tanks, dlvd. lb. .15½- —
Fustic extract, cryst. No. 1, bbls., l.c.l. lb. .47½- —
No. 2, bbls., l.c.l. lb. .45½- —
No. 3, bbls., l.c.l. lb. .43½- —
Fustic extract, liq., No. 1, bbls., l.c.l. lb. .22½- —
No. 2, bbls., l.c.l. lb. .21½- —
No. 3, bbls., l.c.l. lb. .19 - —
Solid, No. 1, bxs., l.c.l. lb. .43 - —

G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid, NF VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.50 - —
Paste, bbls., frt. alld lb. 1.45 - —
Gammapicoline (see g-picoline).
Garlic oil, domestic, bots oz. 5.55 - 6.05
imp., bots. oz. 4.25 - 4.50
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, pure (pork skin), 75 AOAC test, bbls., c.l. lb. .53 - —
150 AOAC test, bbls., c.l. lb. .65 - —
200 AOAC test, bbls., c.l. lb. .72 - —
225 AOAC test, bbls., c.l. lb. .75 - —
275 AOAC test, bbls., c.l. lb. .82 - —
Gelsemium root, bls. lb. .26 - —
Gentian root, bls. lb. .23 - —
Grd., bbls., bxs. lb. .27 - —
Powd., bbls. bxs. lb .27 - —
Geraniol, extra, cns., dms. lb. 2.85 - 3.15
Standard, cns., dms. lb. 1.85 - 2.10
Geranium oil, Algerian, cns. lb.15.75 -17.00
Bourbon, cns. lb.15.25 -17.00
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. lb. 2.55 - 2.85
Ginger oil, dist., bots. lb.15.00 -17.00
Ginger oleoresin NF from African root, bots lb. 5.75 - 6.50
NF, from Jamaican root, bots lb.14.75 - —
Ginger root, African, bls. lb. .20 - —
Cochin, bgs. lb. .14½- .15
Jamaican, No. 2, bgs. lb. .71 - —
No. 3, bgs lb. .66 - —
Nigerian, split, bgs. lb. .20 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., frt. alld lb. .19½- —
dms l.c.l., frt. alld. lb. .20½- —
tanks, frt. alld. lb. .17 - —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd, lb. .15 - —
104 jellygrams, bgs., c.l., same basis lb. .17 - —
131 jellygrams, bgs., c.l., same basis lb. .18 - —
191 jellygrams, bgs., c.l., same basis lb. 21 - —
222 jellygrams, bgs., c.l., same basis lb. .22 - —
Glue, bone, green, dry bone, 40 jellygrams, bgs., c.l., same basis lb. .13½- —
65 jellygrams, bgs., c.l., same basis lb. .13¾- —
86 jellygrams, bgs., c.l., same basis lb. .14 - —
115 jellygrams, bgs., c.l., same basis lb. .15 - —
135 jellygrams, bgs., c.l., same basis lb. .15 - —
164 jellygrams, bgs., c.l., same basis lb. .16 - —
180 jellygrams, bgs., c.l., same basis lb. .17 - —
200 jellygrams, bgs., c.l., same basis lb. .18½- —
Bone glue, l.c.l., prices 1c higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .15 - —
93-121 bgs., c.l., dlvd lb. .16 - —
122-149, bgs., c.l., dlvd lb. .18½- —
150-177, bgs., c.l., dlvd lb. .21 - —
178-206, bgs., c.l., dlvd lb. .23½- —
207-236, bgs., c.l., dlvd lb. .26 - —
237-266, bgs., c.l., dlvd lb. .28 - —
267-298, bgs., c.l., dlvd lb. .30 - —
299-330, bgs., c.l., dlvd lb. .32 - —
331-362, bgs., c.l., dlvd lb. .34 - —
363-394, bgs., c.l., dlvd lb. .36 - —
395-427 bgs., c.l., dlvd lb. .38 - —
428-460, bgs., c.l., dlvd lb. .40 - —
461-494, bgs., c.l., dlvd lb. .42 - —
495-529, bgs., c.l., dlvd lb. .43 - —
Hide glue, l.c.l., prices 1c. higher.
l-Glutamic acid, 99½%, fib dms., 100-lb. lots, frt. alld lb. 2.00 - —
fib. dms., 25-lb. lots, frt. alld. lb. 2.05 - —
l-Glutamine bots. gram. 65 - —
Glycerine, crude, nat., dom., saponification, 88%, dlvd. E., tanks, lb. .16¾- —
Soapiye, 80%, dlvd. E., tanks, lb. .15¼- —
Imp., nat., soapiye, 80%, c.i.f. lb. .13½- .14
Glycerine, nat., refd., USP, CP, 99%, high gravity, dms., c.l., dlvd. lb. .29¾- —
dms., l.c.l., dlvd lb. .29⅞- —
tanks, dlvd. lb. .27⅞- —
96%, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., dlvd. lb. 29 - —
tanks, dlvd. lb. 27 - —

Nice work for a new derivative

Among the newest of Glycerine's derivatives to enter beauty's service are the acetoglycerides. The acetoglycerides promise to produce cosmetics that are easy to apply and which retain initial plasticity under widely varying conditions.

New chemicals such as the acetoglycerides, based on the structure of Glycerine, and new formulations stemming from the physical properties of Glycerine itself, are among the reasons for the continuous expansion in the use of Glycerine by the cosmetics and toilet goods industry.

Glycerine is widely used in oil-in-water emulsions in vanishing type creams. Here it smooths application and prevents "rolling." Glycerine is also a needed plasticizer, solvent, and humectant in beauty packs, creams and deodorants. It is used in depilatories based on methyl cellulose. It is preferred in many skin toning and dry skin lotions, and is virtually indispensable in the aqueous phase of industrial protective creams.

Stable in price, dependable in supply, Glycerine offers processors a unique balance of properties: it is hygroscopic, nontoxic, stable, nonvolatile, with excellent solvent power and agreeable taste. For a useful 20-page booklet, "Glycerine Properties and Uses", write to:

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295 Madison Avenue, New York 17, N. Y.

Nothing takes the place of Glycerine

Glycerine, nat., refd., high gravity, dms., c.l., dlvd lb. .29¼- —
dms., l.c.l., dlvd lb. .29¾- —
tanks, dlvd lb. .27¾- —
high gravity, yellow, dist., dms., c.l. lb. .28½- —
dms., l.c.l., dlvd lb. .29 —
Glycerine, syn., dms., c.l., dlvd lb. .29½- —
dms., l.c.l., dlvd lb. .30 - —
tanks, dlvd lb. .28 - —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glyoxal, 30%, dms., c.l., works lb .20½- —
dms., l.c.l., works lb. .21¼- —
tanks, works lb. .18 —
Golden seal root, NF, tested, bls. lb 4.10 - —
Grapefruit oil, dms lb 1.50 - —
Graphite, amorph, powd., bgs., fib dms, ex whse lb. .06 .09½
Cryst., 88-90% powd., bgs., fib. dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib dms., ex whse lb .21 .24½
95-97% powd., bgs., fib dms., ex whse lb .29 .31½
Graphite, flake, No 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Flake, No 2, 90-95%, bgs., fib. dms, ex whse lb .29 .31
Grease, white, choice all hog, tanks, dlvd lb. .09½- .09⅝
Yellow, tanks, dlvd lb. .08⅝- .08½
Grease oil, No 1, dms, c.l. lb 15¾ —
dms, l.c.l. lb 16¾ 18¾
extra winter strained dms, c.l. lb 18½ —
dms., l.c.l. lb 19¼ 21¼
prime burning, dms., c.l. lb 19¾ —
dms, l.c.l lb 20¾ 22¾

Green Pigments

Green pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb bls lb .45 —
Guaiacol, NF, cryst., dms, tins lb 2.10 2.15
NF liq chys, dms lb 2.30 2.40
Guaiacol carbonate NF VII, dms lb 3.40 3.45
Guar gum, food grade, bgs., c.l. lb. .40 - .45
l.c.l. lb. .43 - 48
Tech. grade bgs. lb. .30 - 35
Guaiacwood oil, cns. lb. 3.25 - 3.75

Gums

Gum quotations, formerly grouped under one heading, are now listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

Gypsum, plaster of Paris, 100-lb. paper bgs., trucks, dlvd. New York ton 20.30 - —
Gypsum, terra alba, dom., 100-lb paper bgs., trucks, same basis ton 20.00 - —
100-lb paper bgs., trucks, works, New York ton 17.00 - —
imp., English, 100-lb. paper bgs., ex dock, New York ton 55.00 - —
100-lb paper bgs., ex whse ton 60.00 - 62.00

H

H acid, dry, bbls., c.l., frt. alld., 100% basis lb. .90 - —
bbls., l.c.l. same basis lb. 1.00 - —
Hansa yellow, 10 G, bbls., same basis as yellow, chrome lb 2.35 - —
Hansa G pigment, bbls lb. 2.20 - —
Hawthorn berries, bgs lb .21 - —
Heliotropin, 100-lb. lots, dms lb 3.00 - 3.25
Hellebore root, dom., green, bls lb. .70 .75
Helonias root, bls lb. 1.75 2.00
Hematine extract, cryst., No. 1, bbls., l.c.l lb. .47 - —
No 2, bbls, l.c.l lb. .43 - —
No 3, bbls., l.c.l lb. .41 - —
No 4, bbls., l.c.l lb. .39 - —
No 5, bbls., l.c.l lb. .37 - —
Paste, No 1, bbls., l.c.l lb .20½- —
Hemlock oil, cns lb. 2.50 - 2.75
Henbane leaves, bls lb .35 .40
Heptane, indust, tanks, Bayonne, N. J gal .20 - —
tanks, Baytown, Tex gal. .16¼- —
tanks, Borger, Tex gal. .16¼- —
Hesperidin, purif, 25 lb lots, f.o.b., works lb 8.95 - —
Hesperidin methylchalcone, bots, 50-lb lots, works lb 22.50 - —
bots., 5-lb lots, works lb 23.00 - —
bots., 1-lb lots, works lb 23.50 - —
Hexachlorophene, dms lb 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb lots or more, Perth Amboy or New York lb. .233 - —
bgs, 1,000-19,999-lb lots, same basis, lb. .243 - —
smaller lots, same basis lb. .253 - —
fib. dms, 1,000-lb lots or more, same basis lb. .250 - —
fib. dms, smaller lots, same basis lb. .253 - —
USP, bgs, 500 lbs or more, f.o.b. Fords N J., dlvd. New York and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .43⅛
Hexane, indust, tanks, Bayonne, N. J gal. .20 - —
tanks, Baytown, Tex gal. .17 - —
tanks, Borger, Tex gal. .17 - —
1-Hexanol, dms, c.l, works lb. .35 - —
dms., l.c.l, works lb. .35¾- —
tanks, works lb. .33 —
Hexyl cinnamic aldehyde, dms lb. 4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works lb. .75½- —
dms, l.c.l., works lb. .76 - —
Hexyl salicylate, dms lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd lb. .17½- —
dms., l.c.l., dlvd lb. .18½- —
tanks, dlvd lb. .15 - —
Hexylresorcinol, USP, dms., 50-lb. lots or more, dlvd lb. 14.00 - —
dms, smaller lots dlvd lb. 14.50 - —
Homatropine hydrobromide, USP, bots oz. 5.50 - —
Homatropine methylbromide, USP, bots oz. 3.90 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago unit-ton. 5.75 - —
Horehound herb, bls lb. .16 - .19
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85% ret, dms., works lb. 1.33 - 1.55
100%, ret, dms., works lb. 1.60 - 1.80
Hydriodic acid, 1.50 s.g., chys lb. 2.92 - —
1.70 s.g., chys lb. 2.23 - —
Hydroabietyl alcohol, tech., solid, zone 1 dms, c.l., dlvd lb. .29¼- —
dms., l.c.l., dlvd lb. .29¾- .30¼
tanks, dlvd lb. .27¼- —
Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo. and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys, dlvd E lb. .37 - .43
Hydrochloric acid, anhyd (see Hydrogen chloride)
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys, l.c.l, dlvd metropolitan area 100 lbs. 2.90 3.05
tanks, works, frt. equald ton. 28.00 —
Hydrochloric acid, 20°, cbs., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l, dlvd metropolitan area 100 lbs. 3.15 - —
tanks, works, frt. equald ton. 30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys., l.c.l., dlvd metropolitan area, 100 lbs. 3.65 - —
tanks, works, frt. equald ton. 35.00 - —
Hydrochloric acid, CP, USP consumers, cbys, extra c.l, works lb. 15¾- —
cbys., l.c.l., same basis lb. .17¼- .17¾
Hydrochloric acid, CP, USP, consumers, 5-pint bots., extra cs., c.l., same basis lb. .20¾- —
5-pint bots., extra, cs., l.c.l., same basis lb. .22¼- .23¼
Hydrocortisone acetate, bulk, bots., 100 grams or more gram 4.50 - —
Hydrocortisone alcohol, bulk, bots., 100 grams or more gram 4.50 - —
Hydrocyanic acid, cyls., c.l., dlvd, lb. .70 - —
cyls., l.c.l., same basis lb. .75 - .90
Hydrocyanic acid, dilute, NF, 2%, 5-lb bots lb. .40 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride)
Hydrofluoric acid, aqueous, 70%, 55-gal. dms., c.l., t.l., dlvd. 100 lbs. 19.25 - —
55-gal. dms. l.c.l. l.t.l., dlvd, 100 lbs. 20.75 - —
20-gal. dms., c.l., t.l., dlvd, 100 lbs. 21.00 - —
20-gal dms. l.c.l. l.t.l., dlvd, 100 lbs. 22.50 - —
tanks, works, frt. equald. 100 lbs. 15.50 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington, and Wyoming. In those states add $2.70 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .06 - —
Hydrofuramide, dms., fib, ctns., works lb. .30 .40
50-lb. cyls, l.c.l., works lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls, l.c., works lb. .45 —
Hydrogen cyanide, liq., 98%, tanks, works lb. .16 - —
Hydrogen fluoride, anhyd., cyls., dlvd E lb. 30½ .32½
cyls., dlvd W lb. .39 —
tanks, works lb. .21 —
Hydrogen peroxide USP bbls, dlvd, lb. 03¾ .05
35%, dms., c.l. dlvd lb. .202 —
dms., l.c.l. dlvd lb. .211 —
tanks, dlvd lb. 1600 —
Hydroquinone photo grade, dms lb 1.03 1.06
Tech., dms, c.l., dlvd lb. .82½ —
dms, l.c.l, dlvd lb. .84½ —
Hydroxyacetic acid, tech., 70%, dms., Philadelphia and Chicago, lb. .11 - —
tanks, Belle, W Va lb. .073 —
Hydroxycitronellal, cns lb. 5.45 7.00
Hyoscine salts (see Scopolamine).
Hyoscyamine hydrobromide, bots oz 6.00 7.00
Hyoscyamine sulfate, bots oz 6.00 6.50
Hypernic extract, cryst, No 1, bbls., l.c.l. lb. .52 —
Liq., No 1, bbls, l.c.l lb. .35 —
No. 2, bbls, l.c.l lb. .27 —
Hypophosphorous acid, purif., 50%, ton lots, f.o.b., works lb. .85 - —
NF, 30%, all quantities, same basis lb. .75 - —

Argo® Inositol N.F.

...Recommended for use in New Geriatric and Lipotropic Formulations

The lipotropic agent, INOSITOL N.F., a constituent of an important class of phospholipids, is a naturally-occurring component of the vitamin-B complex. Used alone or with certain vitamins this significant nutritional factor is effective in helping to regulate fat and cholesterol metabolism and, furthermore, is synergistic in its lipotropic action. INOSITOL N.F. is pure, crystalline, easy to handle and packaged in 5, 10, 50 and 100 pound containers for convenient use in formulations.

When you are considering new therapeutic formulations, investigate ARGO INOSITOL N.F. Information is constantly being received concerning this important factor in many pharmaceutical preparations and is supplied on request. In addition, our technical service staff will be pleased to work together with you on your formulation problems.

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I

Ichthammol, NF, dms., jars ..... lb. .75 - .95
Indigo (see Dyes, coaltar, 1171 indigo, syn.).
Indol, CP, bots. ..... lb. 16.00 - 18.25
Inositol, bots., dlvd ..... lb. 5.00 - —
dms., dlvd ..... lb. 4.50 - 4.75
Insect flowers (see Pyrethrum).
Iodine, crude, kgs ..... lb. 1.10 - —
Resub., USP, dms., jars ..... lb. 2.30 - 2.32
Iodochlorohydroxyquinolin, USP, dms lb. 5.90 - —
Iodoform, NF, dms., kgs ..... lb. 4.90 - 5.00
a-Ionone, cns. ..... lb. 4.65 - 4.70
b-Ionone, cns. ..... lb. 4.80 - 4.90
Ipecac root, bgs., whole ..... lb. 9.00 - —
Powd., bbls., bxs ..... lb. 10.00 - —
Irish moss, bleached, prime, bls lb. .28 - .34
Iron blue, reg., bbls., c.l., dlvd. E. lb. .52 - —
bbls., l.c.l., ton lots, same basis lb. .53 - —
bbls., smaller lots, same basis, lb. .54 - —
Imp., British, bbls., c.l., same basis ..lb. .48 - —
bbls., l.c.l., ton lots, same basis, lb. .49 - —
bbls., smaller lots, same basis. lb. .50 - —
Iron blue, alkali-resisting, bbls., c.l., same basis lb. .57 - —
bbls., l.c.l., ton lots, same basis, lb. .58 - —
bbls., smaller lots, same basis, lb. .59 - —
Iron blue dlvd. prices 1c. higher for states:—Wash., Ore., Cal., N. M., Wyo., Utah Col., and Nev. Pacific Coast Ariz., Mon.
Iron compounds (see Ferric or Ferrous)
Iron oxide black, pure, bgs., c.l., works lb. .13¼- —
bgs., l.c.l., works ..... lb. .13½- —
Iron oxide brown, pure, bgs., c.l., works lb. .14¼- —
bgs., l.c.l., works ..... lb. .14½- —
Iron oxide hydrated yellow, pure, bgs., c.l., works lb. .11½- —
bgs., l.c.l., works ..... lb. .11¾- —
Iron oxide metallic brown, bgs., works lb. .04 - —
Iron oxide metallic red, bbls., c.l., works lb. .02½- —
bbls., l.c.l., works ..... lb. .02¾- —
Iron oxide Persian Gulf red, bgs., c.l., works lb. .07¾- —
Iron oxide red, dom., pure, bgs., Bethlehem, Easton, E. St. Louis, N. Y. lb. .12¾- —
Iron oxide red, nat., 75-85% ferric oxide, bgs., l.c.l., Bethlehem, Pa., Copley O., Easton, Pa. bgs. c.l., works lb. .0675- —
bgs., l.c.l., works ..... lb. .08 - —
Iron oxide Spanish red, bbls., c.l. ex dock lb. .05¾- —
bbls., l.c.l., ex dock ..... lb. .06 - —
bbls., l.c.l., ex whse, New York. lb. .06½- —
Iron oxide yellow, nat., French type, bgs., c.l., works lb. .06 - —
Peruvian type, bgs. l.c.l ..... lb. .0205- .0345
Isoamyl alcohol, dms., c.l., works, frt. alld. E lb. .28 - —
dms., l.c.l., same basis ..... lb. .29 - —
tanks, same basis ..... lb. .25 - —
Isoborneol, cns. ..... lb. 1.60 - 1.80
Isobornyl acetate, cns. ..... lb. .54 - .60
Isobornyl formate, dms. ..... lb. 1.20 - —
Isobornyl proprionate, dms. ..... lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns lb. .75 - 1.00
Solvent grade, dms., c.l., dlvd. E. of Rockies lb. .15¼- —
dms., l.c.l., same basis ..... lb. .16¼- —
tanks, same basis ..... lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd. lb. .16 - —
dms., l.c.l., dlvd ..... lb. .17 - —
tanks, dlvd ..... lb. .13½- —
Isobutyraldehyde, CP, dms., c.l., dlvd lb. .27½- —
dms., l.c.l. dlvd ..... lb. .28½- —
Isobutyraldehyde, tech., dms., c.l., dlvd lb. .21½- —
dms., l.c.l., dlvd ..... lb. .22½- —
tanks, dlvd ..... lb. .19½- —
Isoeugenol, cns. ..... lb. 3.80 - 4.00
Isoniazid, powd., bulk, 25-kilo lots or more kilo. 23.00 - 25.50
bulk, smaller lots ..... kilo. 24.00 - 26.00
Isonicotinic acid, 100-lb. fib. dms., works lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms. c.l., dlvd. E. lb. .23¼- —
dms., l.c.l., dlvd E. ..... lb. .24½- —
tanks, dlvd E. ..... lb. .21 - —
Isopentane, coml. grade, tanks, f.o.b. Tex. refy gal. .15½- —
Isopropanol (see isopropyl alcohol).
Isophorone, dms., c.l., works ..... lb. .24½- —
dms., l.c.l. works ..... lb. .25¼- —
tanks, works ..... lb. .22½- —
Isopropyl acetate, dms. c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis ..... lb. .15 - —
tanks, same basis ..... lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l. dlvd gal. .53 - —
dms., l.c.l., dlvd ..... gal. .60 - —
tanks, dlvd ..... gal. .37 - —
Refd., 95%, c.l., dms., dlvd gal. .55 - —
dms., l.c.l., dlvd ..... gal. .62 - —
tanks, dlvd ..... gal. .39 - —
Refd., 99% dms., c.l., dlvd gal. .57 - —
dms., l.c.l., dlvd ..... gal. .64 - —
tanks, dlvd ..... gal. .41 - —
Isopropyl benzene (see Cumene)
Isopropyl ether, dms., c.l., dlvd. lb. .09½- —
dms., l.c.l., dlvd. ..... lb. .10½- —
tanks, dlvd. ..... lb. .07 - —
Isopropyl-N (3-chlorophenyl) carbamate (CIPC) 70% in xylol, dms. c.l., t.l., works ..... lb. .70 - —
dms. l.c.l. works ..... lb. .714 .814
Isopropylamine (see Mono Di or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works lb. .75 - —
450-lb fib. dms. l.c.l. works lb. .80 .90
Isoquinoline dms. works lb. .65 1.25
Itaconic acid purif. fib dms., c.l., works lb. .54 - —
fib. dms. l.c.l., works ..... lb. .55 - —
Tech., fib. dms., c.l., works ..... lb. .44 - —
fib. dms. l.c.l. works ..... lb. 45 - —

J

J acid, paste, bbls., works, 100% basis lb. 2.45 - —
Powd., bbls. same basis ..... lb. 2.50 2.85
Jalap root, NF, bls ..... lb. .90 Nom.
powd. bbls. bxs ..... lb. 1.15 Nom.
Japan wax, cs. ..... lb. .35 - .36
Juniper berries, bgs. ..... lb. .15 - —
Juniper berry oil, bots. ..... lb. 2.90 - 3.10
Twice rectified bots ..... lb 3.60 - 7.00
Juniper tar, NF, dms ..... lb. 42 - .60
Juniper tar oil, NF (see Juniper tar)
Juniper wood oil, tech. cns ..... lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms ..... lb. .10 - .12
colloidal, fib. dms ..... lb. .15½ - .17¼
Karaya gum No. 1 NF powd., bbls. lb. .45 - —
No. 2, powd. bbls ..... lb. .35 - .38
No. 3, powd., bbls. ..... lb. .30 - .33
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. ..... lb. .13 - —

L

L acid, bbls., works ..... lb. 1.25 - —
Lacquer diluent, petroleum, 150°-240° F b.r., tanks, west coast, ex tax, Los Angeles gal. .174 - —
tanks, east coast, N. J., N. Y. gal. .20 - —
Benzene type, tanks group 3 gal. .1550- —
Toluene type tanks group 3 gal. .1432- —
Lactic acid, edible, 50%, bbls., dms., c.l., frt. equald lb. .1788- .2100
bbls., dms., 20 or more, frt. equald lb. .1838- .2150
bbls., dms., 5 to 19, frt. qeuald. lb. .1888- .2200
bbls., dms., 1 to 4 frt. qeuald. lb. .1938- .2250
80%, c.l., bbls., dms., frt. equald lb. .3038- .3600
bbls., dms., 20 or more, frt. equald lb. .3088 -.3650
bbls., dms., 5 to 19, frt. equald. lb. .3138- .3700
bbls., dms., 1 to 4, frt. equald. lb. .3188- .3750
Lactic acid, plastic grade, 50%, c.l., bbls., works lb. .2100- —
bbls., 20 or more, works lb. .2150- —
bbls., 5 to 19, works ..... lb. .2200- —
bbls., 1 to 4 works ..... lb. .2250- —
80%, bbls., c.l., works ..... lb. .3600- —
bbls., 20 or more, works lb. .3650- —
bbls., 5 to 19, works ..... lb. .3700- —
bbls., 1 to 4, works ..... lb. .3750- —
Lactic acid, tech., 22%, bbls., c.l., works, 100 lbs. 6.30 - —
bbls. l.c.l., works ..... 100 lbs. 6.70 - —
44%, bbls., c.l., works ..... 100 lbs. 11.45 -11.95
bbls., l.c.l., works ..... 100 lbs. 11.85 -12.35
USP, 85% cyls ..... lb. .85 - .88
Lactose, edible, bgs. 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald. lb. .14½- —
bgs., 2,000-lb. lots, frt. equald. lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment. grade, bgs., c.l., works lb. .08½- —
USP, fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
Lactose, USP, fib. dms., 200-1,800-lb. lots, frt. equald ..lb. .22¾- —
USP lactose in bgs., ½c. to 1c. lower.
Lady's slipper root, bls ..... lb. 4.50 Nom.
Lake C red toner, alizarine, bbls., works lb. 1.20 - —
Lamp black, bgs., c.l., works ..... lb. .16 - .45
Lanolin, cosmetic, dms., works lb. .27 - .29
USP, anhyd., mds., works ..... lb. .24 - .26
hydrous, dms., works ..... lb. .23 - .25
Lard, cash, dms. ..... lb. .1140- —
Lard oil (see Grease oil).
Larkspur seed, bgs. ..... lb. .35 - —
Laurel leaf oil, dms. cns ..... lb. 9.75 -12.50
Laurent's acid, bbls ..... lb. .60 - —
Lauric acid, 90%, dms ..... lb. .30½- .33
tanks ..... lb. .28 - —
Lauryl alcohol, bots ..... lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms. l.t.l. works ..... lb. .68 - —
Lavender flowers, medium, bls lb. .75 - .80
Ord., bls. ..... lb. .25 - .40
Select, bls. ..... lb. 1.10 - —
Lavender flower oil, USP, French, 35-37% ester, cns. lb. 3.50 - 5.00
38-40% ester, cns. ..... lb. 7.50 - 8.50
40-42% ester, cns. ..... lb. 8.75 - 9.50
Spike, Spanish, cns ..... lb. 2.05 - —
Lavandin oil, cns., dms ..... lb. 2.00 - 2.55

ONE LABEL — *First Grade Only*
ONE PRICE — *That Saves You Money*
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Pure
Unadulterated
California
LEMON OIL
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For nearly 30 years, Mutual Citrus Products Co. has been cold-pressing California lemon oil for distribution by others. Now, M.C.P. LEMON OIL is being *prepared and packed* under the M.C.P. label. There is only *one* label and *one* quality — *the highest* — for M.C.P. LEMON OIL. Yet, M.C.P. LEMON OIL costs you *less* . . . while providing a product that is unsurpassed for flavor, purity, and dependability . . . for *every* purpose.

Produced and Packed by
MUTUAL CITRUS PRODUCTS COMPANY
Since 1928 Growers and Processors of Citrus Products

Distributed by

MUTUAL CITRUS PRODUCTS CO.
424 South Atchison Street, Anahiem, Calif.

W. J. BUSH & CO., INC.
137 Boston Post Road, Cos Cob, Conn.

Lead acetate, NF, cryst., gran., powd lb. .34½- —
White, cryst., bbls lb. .25¼- —
gran., bbls. lb. .26½- —
powd. bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-lb. bgs. or larger, c.l., frt. alld. on 96 lbs. or more lb. .27½- —
3-lb. bgs. or larger, l.c.l., frt. alld lb. .28½- —
1-lb. bgs., c.l. lb. .41½- —
1-lb. bgs., l.c.l. lb. .42½- —
Lead blue, basic sulfate, bbls., c.l., shipt. point frt. alld lb. .17¼- —
bbls. l.c.l. same basis lb. .18¼- —
Lead carbonate (see Lead, white, basic cahonate)
Lead chloride, dms lb. .45 • —
Lead iodide NF V jars lb. 3.82 • —
Lead linoleate, fused 26% Pb, dms. lb. .33 • —
Lead metal prime, pigs., New York, lb. .1350- —
St. Louis lb. .1330- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .20 — —
bgs. l.c.l. same basis lb. .2075- —
Lead naphthenate liq., 16% Pb, dms. dlvd lb. .17 • —
24% Pb, dms., dlvd lb. .21 • —
Solid, 37% Pb, dms. dlvd lb. .27½- —
Lead nitrate, bbls lb. .26¾- —
Lead orthosilicate-gel, 50-60% PbO, dms. works lb. .29¾ .34¼
Lead peroxide, tech., powd., bbls. lb. .45 • .50
Lead phthalate dibasic dms. works, lb. .41 — —
Lead red 95% Pb_3O_4 or less, bbls., c.l., works, frt. alld lb. .15¾- —
bbls., l.c.l., same basis lb. .16¾- —
97% Pb_3O_4, bbls. c.l. same basis, lb. .1595- —
bbls., l.c.l., same basis lb. .1695- —
98% Pb_3O_4, bbls. c.l. same basis, lb. .1610- —
bbls., l.c.l., same basis lb. .1710- —
Lead resinate precip. 23% Pb, dms., ton lots dlvd lb. .35 • —
Lead salicylate, normal dms. works, lb. .46 • —
Lead silicate, (see Lead, white, basic silicate).
Lead sulfate (see Lead, blue, basic sulfate)
Lead tallate, liq., 16% Pb, dms lb. .15 • —
24% Pb, dms. lb. .18½- —
Solid 30% Pb dms. lb. .23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt., frt. alld. lb. .17½- —
bgs., l.c.l., same basis lb. .18½- —
Lead, white, basic silicate, bgs., c.l., shipt. pt., frt. alld. lb. .16 • —
bgs., l.c.l., same basis lb. .17 • —
Lead white basic sulfate, bgs., c.l., shipt. pt. frt. alld lb. .17¼- —
bgs., l.c.l. same basis lb. .18¼- —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works, lb. .14 • .15
non-ret. dms. l.c.l., same basis lb. .16 • .17
Edible tech., unbleached, non-ret. dms., c.l., same basis lb. .13 • .14
non-ret. dms. l.c.l., same basis lb. .15 • .16
Lemon bioflavonoid complex, fib, dms. 25-lb lots, works lb. 9.00 — —
Lemon oil, terpeneless, bots. lb. 22.00 -30.00
USP, Calif., cns., dms. lb. 3.00 - 3.75
Messina, cns. lb. 4.50 - 6.00
Lemongrass oil, cns., dms. lb. .85 • .95
dl-Leucine dms., works lb. 12.25 -15.00
Licorice root, gran., bls. lb. .15 • .17
Powd., bls. lb. .12 • .15
Whole, bls. lb. .10 • .12
Lignaloe wood oil, Mexican, cns lb. 3.75 • 5.50
Lignosulfonate 70% tannin, bgs., c.l., works lb. .06½- —
bgs. l.c.l., works lb. .06¾- —
Lime, chemical (quicklime), bulk, c.l., 30,000 tons, Metropolitan New York destination, freight equalized with nearest producing pt ton 22.13 • —
Hydrated, bulk,, c.l., same basis. ton 23.63 • —
Spray, bgs., c.l., same basis ton 27.63 • —
Lime oil, dist., Mexican, cns. lb. 5.50 • 7.50
West Indian, cns lb. 6.00 • 9.00
Expressed, West Indian, cns lb. 8.50 -11.00
Terpeneless, dist., bots lb. 68.00 • —
expressed lb. 82.00 -90.00
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Limestone grd., bgs., works ton. 3.50 • 4.00
Linalool ex bois de rose oil, dms. lb. 4.75 • 5.35
Ex linaloe wood oil, dms lb. 5.30 • 7.10
Synthetic, dms., works lb. 5.50 • —
Linalyl acetate, ex bois de rose, 90-92%, dms lb. 4.75 • 5.35
96-98%, dms. lb. 5.25 • 6.60
Ex petitgrain, bots. lb. 4.80 • 5.90
Synthetic, dms., works lb. 5.50 • —
Lindane, 25% formulation, dealers, dms., frt. alld lb. 1.58 • 1.68
99%, tech., formulators, dms., frt. alld lb. 2.65 • 3.25
Linden flowers, with leaves, bls lb. .25 • —
Without leaves, bls lb. .30 • —
Linseed meal, expeller, 32-34% bulk, Minneapolis mills ton. 50.50 • —
Extracted, 34% bulk, same basis ton. 44.50 -45.00
Linseed oil, raw, dms. c.l., New York lb. .1860- —
dms., l.c.l., New York lb. .1960- —
tanks, f.o.b. Minneapolis lb. .1500- —
tanks, New York lb. .1650- —
tankwagon, New York lb. .1690- .1700
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acids, dist., dms lb. .2160- —
Water-white, dms lb. .2460- —
Linseed pitch, dms lb. .06 • .06¾
Litharge comi., powd., bbls., c.l., works, frt. equald lb. .15¼- —
bbls., l.c.l., same basis lb. .16¼- —
Lithium benzoate dms. lb. 1.65 • 1.67
Lithium bromide, NF, dms., works, frt. equald lb. 2.60 • —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms. ton lots to t.l. dlvd lb. 1.30 • 1.30½
Tech., dms., c.l., t.l., frt. alld. lb. .73 • —
dms., ton lots, same basis lb. .79 • —
dms., smaller lots, same basis. lb. .84 • —
Lithium chloride, CP, anhyd., ton lots lb. 1.23½- —
Lithium chloride, tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld lb. .90 • .95
dms., l.c.l., same basis lb. 1.00 • 1.06
Lithium citrate, NF, dms., ton lots. lb. 1.50 • —
Lithium fluoride, bbls., 10,000-lb. lots, dlvd lb 2.17½- —
bbls., ton lots, dlvd. lb. 2.18½- —
bbls., less ton lots, dlvd. lb. 2.23½ — —
Lithium hydride, powd., dms., 500-lots, works lb. 10.50 -12.50
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld. lb. .75 • —
dms., l.c.l., frt. alld lb. .76 • —
Lithium manganite, dms., works lb. .95 • 1.15
Lithium nitrate, tech., dms., 100-lb. lots lb. 1.25 • —
Lithium salicylate, dms lb. 1.60 • 1.70
Lithium silicate, dms., works lb. 1.10 • 1.30
Lithium stearate, dms. c.l., works, lb. .47½- —
dms., ton lots, works lb. .48½- —
dms., less-ton lots, works lb. .53½- —
Lithium sulfate, dms. 100-lb. lots, lb. 1.05 • —
Lithium titanate, dms., works lb. 1.15 • 1.35
Lithol red toner, bbls., works lb. .93 • —
Lithol-rubine red toner, pure bbls., works lb. 1.50 • —
Resinated, bbls., works lb. 1.40 • —
Lithopone, ord., bgs. c.l., dlvd E. lb. .08¾- —
bgs., l.c.l., dlvd E lb. .09¼- —
Titanated (high-strength), bgs., c.l., dlvd lb. .11 • —
bgs., l.c.l. dlvd lb. .12 • —
Lobelia herb, bls lb. .70 • —
Lobeline sulfate, bots., works oz. .37 50 -38 50
Locust bean gum, powd., bgs. lb. .38 • .39
Logwood extract, cryst., No 1, bbls., l.c.l lb .41 • —
No. 2 bbls., l.c.l. lb. .39 • —
Liq. No. 1, bbls., l.c.l. lb. .20 • —
No. 2, bbls., l.c.l. lb. .19 • —
No. 3, bbls., l.c.l. lb. .18½- —
Solid No. 1, boxes, c.l. lb .35 • —
Lycopodium, cs. lb. 5.50 • —
dl-Lysine monohydrochloride, fib dms lb. 12.00 • —
l-Lysine monohydrochloride, fib dms., 25-50 lbs. lb. 12.00 • —

M

Mace, Siauw, bls lb. 2.50 • —
West Indian No 1, bls., shipment lb. 2.90 • —
Mace oil, dist., cns., dms lb. 15.00 -18.00
Magnesia calcined tech. bgs., ctns., frt. equald lb. .25¾ 26½
Tech. syn. rubber grade, light, bgs. c.l. frt equald lb. .29¾ .30½
rubber grade extra light, bgs., c.l. frt equald lb. .29¾ —
bgs., l.c.l. frt equald. lb. .30½ —
USP, light bgs lb. .36½ .37½
heavy 6lb dms. lb. .45 .52
Magnesite, chemical grade, calcined, powd. bgs. c.l. works, frt equald ton. 82.50 • —
Magnesite, chemical grade, dead-burnt, standard grain, bulk, c.l., Chawelah Wash ton. 46.00 • —
Magnesium bromide cs. jars lb .93 1.00
Magnesium carbonate, tech., bgs., c.l. frt. equald lb. .10½- —
bgs. t.l. frt. equald lb. .11 • —
bgs., l.c.l. frt. equald lb. .12½- .13½
USP, bgs., c.l., frt. equald lb. .13 • —
bgs. t.l., frt. equald lb. .13½- —
bgs. l.c.l. frt. equald lb. .14½- .15½
Above prices are quoted f.o.b. works, freight equald, with metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 92% flake or pebble dms. c.l., works lb. .12¾- —
dms. l.c.l. works lb. .14 • 15
Hydrous, 99% flake bgs., c.l., works ton. 55.00 —
bgs. l.c.l. works ton 65.00 -80.00
Magnesium gluconate dms. lb. 1.42 • —
Magnesium hydroxide NF powd., bbls. dms. kgs lb. 23½ .27
Magnesium metal, 99.8% ingots, 10,000-lb. lots or more, works lb. .36 • —
Pigs, 10,000-lb. lots or more, works lb. 35¼- —
Sticks, cs. works, frt. alld. on carlots lb. .59 • —
Magnesium nitrate, cryst., dms., works lb. 29 • —
Magnesium oxide (see Magnesia, calcined)
Magnesium peroxide, 15%, dms., works lb. 1.00 1.05
Magnesium phosphate tribasic, NF, bbls lb. .75 • —
Magnesium silicate (see Talc)
Magnesium silicofluoride, dms., works lb. .10½- .12
Magnesium sulfate tech., bgs., c.l., works 100 lbs. 2.15 —
bgs. l.c.l., works 100 lbs. 2.90 3.15

Now! Lemon oils "tailor-made" to your specific needs!

Now Exchange Lemon Oil California Cold-Pressed is tailor-made for your use.

Exchange Lemon Oil U.S.P., product specification Number 410, is the familiar favorite for extracts with supreme clarity, for exquisite character. Look for the gold line across the label.

Exchange Lemon Oil U.S.P., product specification Number 413, is recommended for emulsions and formulations specifying the whole unemulsified oil. This product is called Royal Line. Look for the blue line across the label.

Both Exchange product types—Number 410 and Number 413—provide full, unadulterated flavor, superb quality, matchless uniformity and exacting dependability. Look for the name "Exchange"—the standard of service—on the tamper-proof tab on the container.

Exchange

LEMON OIL U.S.P.
CALIFORNIA COLD-PRESSED

Sunkist Growers PRODUCTS DEPARTMENT • ONTARIO, CALIFORNIA

Distributed in the U.S. and Canada by

DODGE & OLCOTT, INC. 180 Varick Street New York 14, N.Y.
FRITZSCHE BROTHERS, INC. 76 Ninth Avenue New York 11, N.Y.
UNGERER & COMPANY, INC. 161 Avenue of the Americas New York 13, N.Y.

Inquiries from countries other than the U.S. and Canada should be directed to the Products Dept., Sunkist Growers.

Magnesium sulfate, USP, cryst., bgs., c.l., works 100 lbs. 2.35 - —
bgs., l.c.l. 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate USP fib. dms., 5,000-lb lots lb. .38 - —
fib dms. 1,000-lb lots lb. .40 - —
fib. dms. 100-lb lots lb. .45 - —
Bulky and super grades of magnesium trisilicate 7c. per lb. higher.
Malachite green, straight, PTMA, bbls., works lb. 5.30 - —
Malathion, dms. c.l. works lb. .90 - —
dms., l.c.l. works lb. .92 1.02
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride dms. c.l. dlvd. E. of Rockies lb. .28¾- —
dms., l.c.l., dlvd. E. of Rockies lb. .29¾- —
tanks, dlvd E. of Rockies lb. .27¾- —
Prices on maleic anhydride W. of Rockies, 1½c. per lb higher.
Malic acid, tech. dms lb. .50 - —
Mandelic acid NF dms. 1,000-lb. lots. lb. 2.35 - —
dms., smaller lots lb. 2.40 - 2.50
Mandrake root bls. lb. .50 - .52
Manganese acetate, bbls., dlvd lb. .35 - —
Manganese arsenate, bgs. lb. .16 - —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, bbls., works lb. .22 - —
Manganese chloride, anhyd., dms., works lb. .25½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net, works ton. 148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton. 144.50 - —
40,000 to 99,999-lb. lots, dms., same basis ton. 152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb lots $3 per ton higher.
Manganese hydrate, bbls., dlvd lb. .36 - —
Manganese hypophosphite, NF, dms. lb. 3.53 - —
Manganese linoleate, liq., 4.35% Mn, dms lb. .32½- —
Solid, precip., 8.2% Mn, bbls lb. .37½- —
Manganese metal, electrolytic, dms., c.l., dlvd E lb. .34 - —
dms. ton lots, dlvd. E lb. .36 - —
dms., smaller lots, dlvd. E lb. .38 - —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld lb. .27 - —
Manganese resinate, fused, 3½% Mn. dms lb. .24 - —
Precip., 6½-7% Mn. dms lb. .30 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd. S. E ton. 97.50 - —
bgs., l.c.l., dlvd. S.E ton. 104.50 - —
Manganese tallate, 6%, dms. lb. .34 - —
Manganous gluconate, dms. lb. 1.84 - —
Mangrove bark, E. African, 38% tannin, bgs., c.l., ex dock, ton. 63.00 -65.00
South American, 30% tannin, bgs., c.l., ex dock ton. 52.00 -53.00
Manila copal gum, C, bgs. lb. .34 - .38
CBB, bgs. lb. No stocks.
DBB, bgs. lb. .24 - .27
DK, bgs. lb. No stocks.
DK, dust, bgs lb. .14 Nom.
MA, soft, bgs. lb. .18½- .22
WS, bgs. lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works lb. .60 - —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works lb. .30 - —
bgs., l.c.l., works lb. .31 - —
Menadione, USP, bots gram. .044 - .05
Menhaden oil, crude, tanks, works, Atl. & Gulf lb. .08¾- .09
Menthol, Nat., USP, Brazilian, cs lb. 6.25 - 6.50
Syn., USP racemic cns lb. 4.50 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs., fib. dms., less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld lb. .54 - —
bgs., fib. dms., less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 50-lb. lots or more lb. 4.98 - —
NF, gran. or powd., dms., 50-lb. lots or more lb. 4.78 - —
Mercuric cyanide, NF, VIII, powd., fib. dms lb. 6.84 - —
Mercuric iodide, red, NF X, fib. dms. lb. 7.72 - —
Mercuric oxide, red, NF X, powd., fib. dms lb. 5.97 - 6.01
Tech., c.l., works, tech. lb. 5.77 - —
NF X, fib. dms. lb. 6.14 - —
Mercuric oxide yellow, bbls., tech., 1,000-lb. lots lb. 5.58 - —
bbls., smaller lots lb. 5.60 - —
Mercurous chloride (see Calomel).
Mercurous iodide yellow, NF lb. 7.72 - —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lb. per flask, net-flask 227.00 -232.00
Mesityl oxide, dms., c.l., dlvd lb .15 - —
dms., l.c.l., dlvd. lb .16 - —
tanks, dlvd. lb 12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works lb .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-tolylenediamine).
Methacrylic acid, glacial, 98%, dms., truckloads, works lb. .47 —
dms., smaller lots, works lb. .47½- .50
tanks, works lb. .45 —
Methanol, nat., denaturing grade, tanks, frt. alld gal. .85 - —
Syn. zone 1, dms., c.l., or t.l. min., frt. alld. or dld gal. .48½- —
dms., t.c.l., works gal. .55½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. metropolitan area gal. .35½- —
tankwagon, 4,000 gal., min., frt. alld. or dlvd gal. .32½- —
tankwagon, 4,000 gal. min., works, Carteret, Camden, N. J gal. .29½- —
Syn., zone 2, dms., c.l., or t.l. min. frt. alld. or dlvd gal. .51½- —
dms., t.c.l., works gal. .58½- —
tankwagon, 2,000-4,000-gal. lots, min., dlvd. metropolitan areas gal. .38½- —
tanks, 4,000 gal. min., frt. alld. or dlvd gal. .35½- —

Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.

Methenamine (see Hexamethylenetetramine).
dl-Methionine, fib. dms., frt. alld. 50-lb. or more lb. 3.50 - —
Feed grade, 98%, fib. dms., same basis lb. 2.65 - —
Methoxychlor, 50% wettable powder, dealers, dms., cs., frt. alld lb. .61 - .64
Methyl abietate, non-ret. dms., c.l., dlvd, zone 1 lb. .20½- —
non-ret. dms., l.c.l., same basis lb. .21 - —
Methyl abietate, hydrogenated non-ret. dms., c.l., dlvd., zone 1 lb. .21 - —
non-ret. dms., l.c.l., same basis lb .21½- —

Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala. Ga.; Fla., S. C. and Tenn

Methyl acetone, nat., dms., t.c.l., E of Miss., frt alld gal. .62½ —
Methyl acetone, syn., dms., c.l., frt. alld. E gal. .66 - —
dms., t.c.l., frt. alld. E gal. .72 - —
tanks, frt. alld. E gal. .51 - —

Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo West territory is made up of all states west of those four.

Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 - —
dms., t.t.l., dlvd. lb. .40 - —
tanks, dlvd. lb. .37 - —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., t.c.l., dlvd E lb. .18 - —
tanks, dlvd E lb. .14½- —
Methylamyl alcohol (see Methyl isobutyl carbinol).
Methylamyl ketone, dms., works lb. 1.05 - —
Methyl anthranilate, cns lb. 2.35 - 2.65
Methyl benzoate, cns., dms lb. .65 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 .65
Methyl cellulose, special vis. (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs lb. 1.05 - —
Methyl cellulose, standard vis. (15,-400 cps.), 50-lb. bgs., c.l., frt. alld lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .76 - —
50-lb. bgs. smaller lots, frt. alld. on 100-lbs lb. .79 - .89
Methyl chloride, indust. cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis, lb. .16¼- —
tanks, single unit, same basis, lb. .12¾- —
Refrigerator mfrs., cyls. dlvd lb. .48¾- —
other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-trichloroethane).
Methyl cinnamate lb. 1.55 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd lb. .16 - —
tanks, dlvd lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
t.c.l., works lb. .45¾- —
tanks, works lb. .43 - —
Methyl formate, refd., dms lb. .35 - .40
Tech., non-ret. dms., any quantity works lb. .10 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
t.l., min. 23,000 lbs., works lb. .21½- —
l.c.l., works lb. .23 - —
Methyl heptin carbonate, bots lb. 28.00 -31.00
Methyl p-hydroxybenzoate fib. dms. lb. 1.90 - 2.00
Methyl ionone, standard, cns., dms. lb. 4.85 - —
Methyl isobutyl carbinol, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., dlvd lb. .18 - —
tanks, dlvd lb. .14½- —
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., dlvd lb. .18 - —
tanks, dlvd lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald. with Belle, W Va lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —

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Ethyl Silicate 28%—40%

Mono Cresyl Diphenyl Phosphate

Tricresyl Phosphate—T.C.P.

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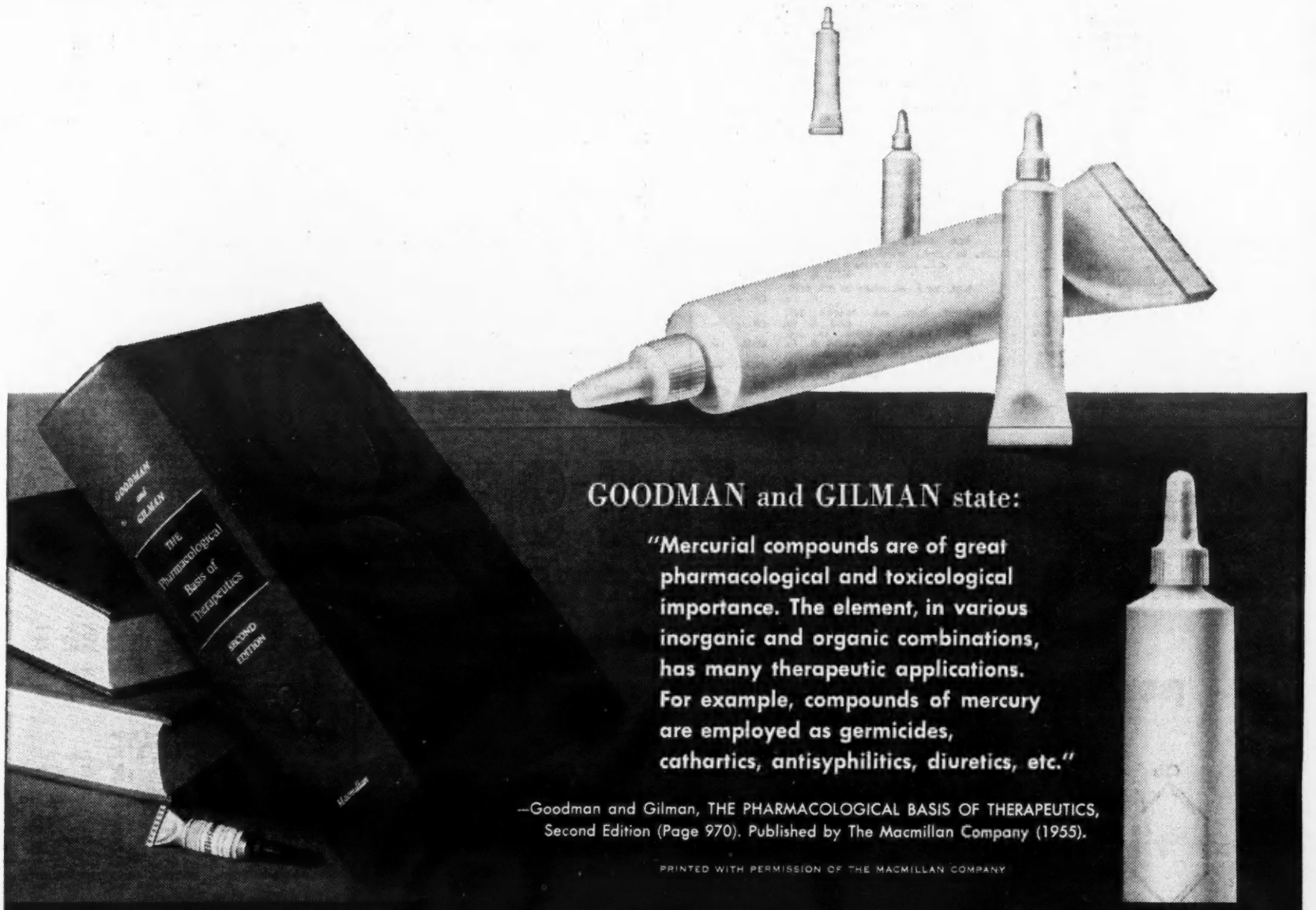

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—Goodman and Gilman, THE PHARMACOLOGICAL BASIS OF THERAPEUTICS, Second Edition (Page 970). Published by The Macmillan Company (1955).

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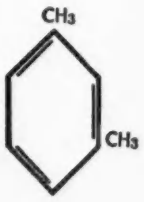
Methyl naphthyl ketone, cryst., cns. lb. 3.00 - 4.30
Methyl parahydroxybenzoate (see Methyl p-Hydroxybenzoate).
Methyl parathion, tech. 80%, dms., c.l., frt. alld. lb. 1.40 • —
l.c.l., frt. alld. lb. 1.45 • —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms. lb. 6.90 • —
Methyl salicylate, USP cns., 500-lb. lots lb. .62½- —
Methyl testosterone, USP, 100-gram bots gram. .68 • —
Methyl violet toner, molybdated, PMA, bbls., dlvd. N. of Tenn. and N. C., E of Miss. R., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. 2.80 • —
Methyl violet toner, tungstated, PTMA, bbls., same basis lb. 4.35 • —
Methyl violet toner dlvd. prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1¼c.), Miss. N. C., S. C., Tenn., Tex. (El Paso 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln Omaha, St. Joseph, 1.6c. higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt equald. with Chicago.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted lb. 3.25 • —
Methylene chloride, tech., dms., straight or assorted, c.l. or t.l., works lb. .14 • —
l.c.l., t.t.l., works lb. .16¾- —
tanks, 4,000-gal, min., tank trucks, maximum load limit, works lb. .12½- —
tank trucks, 1,000-gal. min., works lb. .13½- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb. .90 • —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methylipyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint plastic, 100 mesh, bgs., c.l., works lb. .04 • —
roofing, 20 to 80 mesh, works lb. .03 • —
Mica, wet-grd., biotite, bgs., c.l., works, frt. alld. E lb. .06½- —
bgc. l.c.l., ex-whse. lb. .07¼- —
Mica, wet-grd., paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E lb. .08¼- —
bgs., l.c.l. ex-whse or frt. alld. E lb. .09 • —
rubber, bgs., c.l., works, frt. alld. E lb. .08 • —
bgs., l.c.l., ex-whse. or frt. alld E lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld. E lb. .08¾- —
bgs. ex-whse. or frt. alld E. lb. .09 • —
white, 5-10 microns, bgs., c.l., works, frt. alld. E lb. .08¼- —
Mica, wet-grd., white, 5-10 micron, bgs., l.c.l., ex-whse, or frt. alld. E lb. .09 • —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 • .11
laminating grades, tankcars, works lb. .11 • .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy gal. .62 • —
non-ret. dms., l.c.l., same basis gal. .67 • —
tankcars, refy. gal. .46 • —
65-75 vis., non-ret. dms., c.l., same basis gal. .62 • —
non-ret. dms., l.c.l., same basis gal. .67 • —
tankcars, refy. gal. .46 • —
80-90 vis., non-ret. dms., c.l., same basis gal. .63 • —
non-ret. dms., l.c.l., same basis gal. .68 • —
tankcars, refy. gal. .47 • —
135-138 vis., non-ret. dms., c.l., same basis gal. .69 • —
non-ret. dms., l.c.l., same basis gal. .74 • —
tankcars, refy. gal. .53 • —
145-155 vis., non-ret. dms., c.l., same basis gal. .75 • —
non-ret. dms., l.c.l., same basis gal. .80 • —
tankcars, refy. gal. .59 • —
180-190 vis., non-ret. dms., c.l., same basis gal. .77 • —
non-ret. dms., l.c.l., same basis gal. .82 • —
tankcars, refy. gal. .61 • —
Mineral oil, white, tech., 200-210 vis., non-ret. dms., c.l., f.o.b., New York gal. .84 • —
non-ret. dms., l.c.l., same basis gal. .89 • —
tankcars, refy. gal. .63 • —
300-350 vis., non-ret. dms., c.l., f.o.b., New York gal. .84½- —
non-ret. dms., l.c.l., same basis gal. .89½- —
tankcars, refy. gal. .68½- —
Mineral orange, American, bbls., l.c.l., works lb. .1910- —
Mineral spirits, petroleum, odorless, tanks, refy., Watson, Calif. gal. .25 • —
tanks, Borger, Tex. gal. .25 • —
Houston, Tex. gal. .25 • —
Philadelphia gal. .32 • —
Newark gal. .29 • —
New York, dlvd. gal. .30½- —
Wood River, Ill. gal. .2725- —
tankwagon, New Jersey, dlvd. gal. .37½- —
tankwagon, New York, dlvd. gal. .38½- —
reg. tanks, Calif., ex tax San Francisco gal. .169 • —
tanks, east coast New Jersey, New York gal. .18 —
tanks, group 3 gal. .12875- —
tankwagon Boston gal. .20 • —
Buffalo gal. .20½- —
Chicago gal. .289 • —
Cleveland gal. .23½- —
Newark gal. .19 • —
tankwagon, New York gal. .19 • —
Philadelphia gal. .19½- —
Pittsburgh gal. .19 • —
Providence gal. .20½- —
Mirbane oil (see Nitrobenzene)
MNPT maroon toner, kgs., c.l., works lb. 6.30 • —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .12 • .13
tanks, New York gal. .21 • —
Molybdated orange, bbls lb. .48 • —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo 7.84 • —
325 mesh, ctns., works kilo 9.13 • —
Molybdenum trioxide, pure, dms., works lb. 1.15 • —
Tech., dms., works, basis Mo content lb 1.39 • —
Molybdic acid, 85%, dms., works lb. 1.20 • —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., l.c.l., same basis lb. .58½- —
tanks, same basis lb. .55 • —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½- —
dms., l.c.l. same basis lb. .11½- —
tanks, same basis lb. .08¾- —
Monoethanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .25 • —
Monoethylalphanaphthylamine (see N-Ethyl-a-naphthylamine)
Monoethylamine, 70% aqueous solution 100% basis, dms., c.l., dlvd. E lb. .38½- —
dms., l.c.l., dlvd. E lb. .40 • —
tanks, dlvd. E lb. .35 • —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidin (see N-Ethyl-o-toluidine)
Monoisopropanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .25 —
Monoisopropylamine, anhyd., dms., c.l., dlvd lb. .33½- —
dms., l.c.l., same basis lb. .34½- —
tanks, same basis lb. .31 • —
Monomethylamine, 30 35% soln., dms., c.l., frt. equald, 100% basis lb. .40 • —
dms., l.c.l., frt. equald, 100% basis lb. .40½- —
tanks, frt. equald. 100% basis. lb. .31 • —
Monomethylamine, 40% soln., dms., frt. equald., 100% basis lb. .37 • —
dms., l.c.l., frt. equald, 100% basis lb. .37½- —
tanks, frt. equald. 100% basis. lb. .31 • —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld lb. 3.05 • —
dms., 100-lb lots, same basis lb. 3.25 • —
Monosodium glutamate, dms., c.l. lb. 1.12 • —
dms., l.c.l. lb. 1.15 • —
Monosodium phosphate, (see Sodium phosphate, monobasic).
Montan wax, dom. refd. bgs lb. .29 • .30
imp., crude, Bohemian, bgs. lb. .23 • .24
German, bgs. lb. .27 • .28
Mono-tertiary-butylmetacresol (see 6-tert-Butyl-m-cresol).
Morphine, cns oz. 12.40 -12.60
Morphine acetate, anhyd., cns oz. 9.95 -10.00
Morphine hydrobromide, cns oz. 9.90 9.95
Morphine hydrochloride, NF, cns. oz. 9.90 9.95
Morphine sulfate, USP cns oz. 9.90 -10.05
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., l.c.l., dlvd E lb. .56¼- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb 4.45 5.15
Syn., ambrette, cns., 25-lb. lots lb 5.05 5.65
cns., 5-lb lots lb 5.20 5.50
Ketone, fib. dms., 100-lb. lots lb 4.70 5.30
cns., 25-lb lots lb 5.35 • —
cns., 5-lb. lots lb 5.45 • —
Musk, syn., xylol, fib. dms., 100-lb. lots lb 1.40 • —
cns., 25-lb lots lb 1.45 • —
cns., 5-lb. lots lb 1.50 • —
Mustard seed, Danish, yellow, bgs. lb .10 • —
Dutch, bgs lb .10½- —
English, yellow, bgs lb .11 • —
Montana, bgs., No 1 lb .09½- —
Mustard oil, syn., bots lb 1.60 1.85
Mustard seed oil, nat. dms. lb .17½ Nom.
Myristic acid, dms lb .26 • .30
tanks lb .25¾- —
Myrobalans, Bombay ton 55.00 -56.00
J-1, genuine, bgs., ex dock ton 60.00 -62.00
J-1, crushed, bgs., ex dock ton 75.00 -76.00
Myrobalans extract, indian solid, 55% tannin, bgs., ex dock, plus duty lb .10½- .10¾
Myrrh gum, cs lb .50 • .55

N

Naphtha, high solvency (see Solvent naphtha, petroleum)
Naphtha, petroleum, cleaner's, 140°F, flash, tanks, east coast, New Jersey and New York gal. .18 • —
tanks, group 3 gal. .15 • .15¼
tankwagon, Newark gal. .19 • —
New York gal. .19 • —
Philadelphia gal. .19¼- —

ORONITE® META-XYLENE 95%

commercial intermediate for making dyestuffs, polyesters, perfume ingredients!



Commercially available Oronite Meta-Xylene may well provide you a better, more economical raw material as an alternative route in your present production. Or, this xylene isomer may offer you attractive opportunities for new or improved products.

Oronite was the pioneer and is today the leading producer of Meta-Xylene—offering you commercial quantities in drums or tank cars with a 95% minimum purity. Contact the Oronite office nearest you for further information.

Possible Process	Name of Product	Possible Use of Product
Chlorination (hot)	Meta-xylyl chloride	Fumigant
Dichlorination (boiling)	Meta-xylylene chloride	Hydrocarbon resin
Chlorination and hydrolysis	Meta-xylyl alcohol	Solvent, esters
Chlorination and hydrolysis	Meta-xylylene glycol	Alkyd resins
Chlorination (5% iodine, darkness, 0°C)	4-Chloro-meta-xylene	Solvent
Dichlorination	2, 4-Dichloro-meta-xylene	Insect repellent
Oxidation and Chlorination	Tetrachloroisophthalic acid	Non-flammable coatings and textile impregnants
Oxidation and Amidation	N, N— Diethyl-meta-toluamide	Insect repellent
Oxidation (chromyl chloride)	Meta-tolualdehyde	Perfume bases
Oxidation	Meta-phthalaldehyde	Dyestuffs synthesis
Sulfonation (oleum)	Meta-xylene-4-sulfonic acid	Dyestuffs
Sulfonation (fusion)	2, 4-Xylenol	Frothing agent
Chlorination and catalytic hydrolysis	3, 5-Xylenol	Phenolic resins
Acidic formaldehyde condensation	Meta-xylene formaldehyde resin	Paints and varnishes
Nitration (nitric and sulfuric acids)	4-Nitro-meta-xylene	Solvent
Nitration and reduction or hydroxylamine hydrochloride and $AlCl_3$	4-Amino-meta-xylene (meta-xylidine)	Dyestuffs
Dinitration (below 5° C with sulfuric (D 1.84) and nitric (D 1.51) acids)	2, 4-Dinitro-meta-xylene	Intermediate
Nitration (sulfuric and nitric acids)	2, 4, 6-Trinitro-meta-xylene	Explosive
Sulfonation (1 part meta-xylene at 150° C with 4 parts oleum)	Meta-xylene 4, 6-disulfonic acid	Intermediate
Sulfonation and fusion	Meta-xyloresorcinol	Resin accelerator
Acetylation (acetyl chloride in presence of $AlCl_3$)	Dimethyl acetophenone (4-meta-xylyl methyl ketone)	Perfume intermediate
Alkylation and dehydrogenation	2, 4-Dimethyl-styrene	Thermoplastic rubber

ORONITE CHEMICAL COMPANY

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U.S.I. CHEMICAL NEWS

November ★ A Series for Chemists and Executives of the Solvents and Chemical Consuming Industries ★ 1957

U.S.I. Joins Mallory And Sharon in Integrated Company to Produce Zr, Ti

U.S.I. will soon join in the management of Mallory-Sharon Titanium Corporation which will change its name to Mallory-Sharon Metals Corporation. The reorganized company will then produce zirconium and titanium metals and mill products, and other special light metals such as hafnium. Each of the following companies owns a one-third interest in the new enterprise: National Distillers and Chemical Corporation (U.S.I. Division). P. R. Mallory & Co., Inc. and Sharon Steel Corporation.

All assets of both the Mallory-Sharon Titanium Corporation and Reactive Metals, Inc., as well as USI-National Distillers' zirconium plant and forthcoming titanium plant will be combined in the newly formed corporation. With assets exceeding $55 million, the new company will be the largest fully integrated producer of special metals.

Presidents of the three owner companies have made this joint statement: "This consolidation of interests creates a completely integrated special metals company with technical 'know-how' and facilities for every step, from original chemical process to production and fabrication of finished products. The benefits from this strengthening of operations, plus the combination of current and future research activities, hold great promise for present production of titanium and zirconium and for other special metals as well."

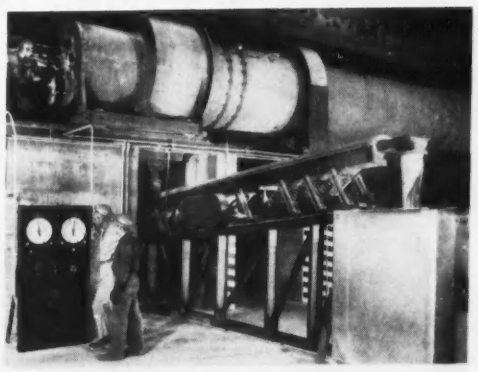
Zirconium Metal Plant Starting Up

In 1956 U.S.I.-National Distillers was awarded a contract by the Atomic Energy Commission to supply one million pounds of zirconium metal annually for a five-year period. A plant was designed and built at Ashtabula, Ohio with a design capacity of 2 million pounds per year, and the plant is now in process of being started up. Hafnium sponge and oxide will also be produced as an adjunct to the zirconium operation.

A titanium sponge plant with a design capacity of ten million pounds per year is under construction at Ashtabula.

Both of these plants have been designed to utilize a new sodium-reduction process developed by U.S.I.-National Distillers. It is

MORE



Zirconium oxide kiln in chemical processing section of Mallory-Sharon Metals Zr plant.

Methionine Given After Exposure Reduces Damage From Radiation

Report Is First Evidence of Methionine's Effectiveness Against Tissue Breakdown When Given After Exposure to Radiation

New experimental evidence indicates that the sulfur amino acid, methionine, is even more effective in reducing tissue damage caused by radiation when administered *after* radiation exposure than it is when given *before* exposure.

Earlier reports have demonstrated methionine's ability to protect experimental animals from the effects of subsequent exposure to X-ray irradiation (U.S.I. CHEMICAL NEWS, Sept.-Oct., 1955). The present work, reported in a leading English scientific journal by Indian scientists working in Bombay, is believed to be the first to show methionine's post-irradiation effectiveness.

In the tests, deoxyribonucleic acid (DNA) levels in the liver, spleen and bone marrow were used as a measure of the extent of radiation damage. DNA is the substance in the nucleus of all cells believed to carry the mechanism of heredity. The researchers found that DNA levels in untreated animals were reduced by as much as 87% after exposure to radiation. DNA in methionine-treated animals was reduced to only about one-half of pre-exposure levels.

Methionine administered prior to irradiation afforded a considerable amount of protection, but was less effective than post-irradiation treatment. The radiolability of methionine—its tendency to be destroyed by ionizing radiations such as X-rays—is believed to account for this reduced effectiveness.

In evaluating the pre- and post-irradiation effectiveness of methionine, however, it should be noted that in the recent work methionine was given intraperitoneally. It has been reported (U.S.I. CHEMICAL NEWS, July, 1957) that radiation can cause a decrease in the ability of the body to absorb methionine that has been fed orally.

Methionine Aids Nucleic Acid Synthesis

The specific means by which methionine acts to prevent tissue damage from radiation is related to the nucleic acid synthesizing mechanism itself. Methionine is known to play a part in two chemical processes which are involved in the production of DNA — transmethylation and phosphorylation. (Methionine is a principal source of methyl groups for the animal organism and is a precursor of creatine, which is active in the phosphorylation process.) Thus, by aiding two of the essential routes by which nucleic acids are made, methionine keeps the synthesizing mechanism in order and exerts a therapeutic influence on radiation injury.

The considerable amount of research that has been done on methionine's effectiveness in minimizing radiation damage stems from methionine's well known ability to promote healing of wounds and burns. It is also a detoxifying agent through its action on the liver.

MORE

Brightness Is Controlled By pH in Sodium Peroxide Bleaching of Groundwood

A recently reported investigation into the fundamental chemistry of bleaching groundwood with sodium peroxide indicates that reaction rate and pulp brightness increase with pH. However above a certain pH, a colored compound is formed which tends to yellow the pulp. Therefore there is, in commercial practice, an upper pH limit for the production of pulp having maximum brightness.

Brightness Development in Sodium Peroxide Bleaching of Groundwood

pH	Time to reach max. brightness, min.	Effective Na peroxide consumption, g./l.	Maximum brightness, %
9.0	180 +	0.10	57.1
10.0	130	0.33	59.3
10.5	110	0.47	60.2
11.0	80	0.53	60.7
11.5	70	0.53	60.2
12.0	40	0.56	60.4
12.5	20	0.48	59.2

Sodium peroxide bleaching of groundwood has been used for some time by pulp makers. It produces a relatively large increase in brightness at low cost, without affecting pulp quality adversely or decreasing yield materially.

This study reveals that the rate of total peroxide consumption increases as pH rises from 9 to 12, due largely to the increased rate of the peroxide-groundwood reaction. The rate at which peroxide decomposes to form oxygen also goes up with pH, but this is minimized by materials in the groundwood and by adding stabilizers.

It was also learned that the rate and amount of brightness improvement increases with pH. Yellow color, mentioned previously, increases at the same time, the effect being more pronounced toward the end of the bleaching period. It causes reversion of brightness in some cases.

The most effective bleaching under the conditions used by the investigators was obtained at pH 11. Here the peroxide-groundwood reaction is fast enough, in relation to the decomposition reaction, to give appreciable bleaching in the first third of the bleaching period. On the other hand, the pH level is not high enough to produce excessive color shift and brightness reversion.

Sodium peroxide for groundwood bleaching is made from metallic sodium at U.S.I.'s plant in Ashtabula, Ohio.

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November ★ # U.S.I. CHEMICAL NEWS ★ 1957

CONTINUED Methionine

Methionine also is known to improve feathering in poultry and hair coat quality in fur bearing animals. As the only sulfur-containing essential amino acid, it is widely used in the manufactured feed industry as a protein supplement to promote growth and health in livestock and poultry.

The first commercial synthesis of methionine, which has led to its widespread use in medical and animal feed applications, was pioneered by U.S.I.

CONTINUED New Company

believed to be the lowest cost method developed to date for the production of these metals. Mallory-Sharon Metals will be granted an exclusive, royalty-free license in the U. S. for the production of titanium, zirconium and other metals by this process.

Sodium is supplied by the existing U.S.I.-National Distillers sodium operation three-quarters of a mile away. At Ashtabula, Mallory-Sharon Metals will also have facilities for melting zirconium metal into ingots.

Titanium sponge will be melted and both metals fabricated at the existing Mallory-Sharon plant at Niles, Ohio.

High Purity Silicon Being Made Via Sodium Reduction

High purity metallic silicon for electronics use in semi-conductor devices is now being produced by the sodium reduction of silicon tetrachloride. The product contains boron in the order of two parts per billion, and has resistivities up to 500 ohm-centimeters.

Several thousand pounds of the material have already been manufactured in one plant overseas, and indications are that this process is more economical than either hydrogen reduction of silicon tetrachloride or reduction of silicon monoxide.

New Cooling Towers Packed with Polyethylene Grids

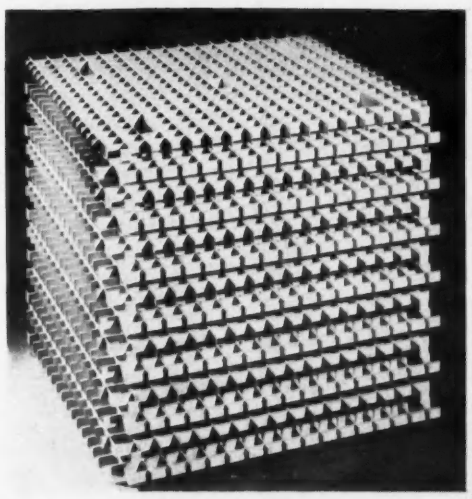

Photo shows typical stacking arrangement of polyethylene grids. (courtesy Fluor Products)

Polyethylene is now being injection molded into grid packings for water cooling towers. These grids are designed to provide the air-water contact surface usually provided by wooden bars or slats. They cool very efficiently, and eliminate maintenance problems due to their strength and corrosion resistance.

The grids are available in 2 sizes (3 ft. sq. and 2 ft. by 4 ft.). They are stacked vertically two inches apart in the cooling tower. This spacing arrangement allows for horizontal distribution of rising air and cascading water. It provides the same cooling efficiency as would the usual unspaced series of wooden slats while saving weight and material.

In addition to applications in new industrial and air conditioning cooling towers, these polyethylene grids can replace worn out portions of wooden packings in existing cooling towers. They have potential in gas scrubbers, trickling filters and other operations where efficient gas-liquid contact is desired.

TECHNICAL DEVELOPMENTS

Information about manufacturers of these items may be obtained by writing U. S. I.

Polyethylene packaging materials are illustrated in a recent brochure. Bags, sheets, drum-liners and pressure-sensitive tapes are described, as well as water vaporproof, flexible and protective wraps made of barrier material. **No. 1291**

Buffer salts in disposable packets are now available. Each packet is carefully weighed, has been lot-analyzed for purity. Contents dissolved in a litter of water provide a ready-to-use buffer solution. **No. 1292**

Tape entry to computers is facilitated by a new machine with internal core storage, which gathers asynchronous digital information from external sources and combines them in any sequence with record numbers and manually inserted data. **No. 1293**

A new pamphlet on zirconia discusses the history, the chemical and physical properties, the composition, and the porosity of the chemical. Included is a refractory comparison chart. **No. 1294**

A calibrated dispenser delivers a specific volume of liquid from 1 cc. to 100 cc. rapidly and repeatedly. Measurement is automatic, said to be accurate to within 1%. Can be used for volatile, toxic, or alkaline liquids. **No. 1295**

Two monomeric ester-type plasticizers are said to be useful for safety glass, synthetic rubbers and lacquers, and as plasticizers for cellulose acetate butyrate, polystyrene, acrylic resins and ethyl cellulose. **No. 1296**

A pamphlet on fire research reports of the facilities, personnel and management of the principal agencies engaged in this work. It also describes tests of various materials and fire-protection systems. **No. 1297**

A polyethylene pump is now being made for use with inflatable boats and mattresses. Air is trapped inside the bag by folding the top together, and forced into the mattress through a valve by compressing the bag. **No. 1298**

Oleoresin mace, a new spice oleoresin, is described as a dark, reddish-brown, homogeneous liquid, and is said to be completely solvent-free. It contains from 50 to 60 cc. of volatile oil per 100 grams net. **No. 1299**

A new nickel stripper is reported to contain no cyanide, caustic or acid, and to be stable over long periods of time, even at high temperatures. Manufacturer claims it will not fume, pit or corrode. **No. 1300**

PRODUCTS OF U.S.I.

PHARMACEUTICAL PRODUCTS:

DL-Methionine
N-Acetyl-DL-Methionine
Riboflavin USP
Urethan USP
Intermediates

OTHER PRODUCTS:

Alcohols: Ethyl (pure and all denatured formulas), Normal Butyl, Amyl, Fusel Oil; Proprietary Denatured Alcohol Solvents SOLOX®, FILMEX®, ANSOL® M, ANSOL® PR.

PETROTHENE® Polyethylene Resins.

Esters, Ethers and Ketones: Normal Butyl Acetate, Dibutyl Phthalate, Diethyl Carbonate, Diethyl Oxalate, Ethyl Acetate, Ethyl Ether, Acetone, Diatol®.

Intermediates and Fine Chemicals: Acetoacetarylides, Dimethyl Hydrazine, Ethyl Acetoacetate, Ethyl Benzoylacetate, Ethyl Chloroformate, Ethylene, Ethyl Chloride, Ethyl Sodium Oxalacetate, U.S.I. ISOSEBACIC® Acid, Methyl Hydrazine, Sodium Ethylate Solution, Triethyl Aluminum, Trimethyl Aluminum, Urethan USP (Ethyl Carbamate).

Animal Feed Products: Calcium Pantothenate, Choline Chloride Products, MOREA® Premix, Special Liquid Curbay®, DL-Methionine, Niacin USP, Riboflavin Concentrates, Vitamin B_{12} and Antibiotic Feed Supplements, Vacatone® 40, Vitamin D_3 and K_3 Products, Antioxidant (BHT) Products, Special Mixes, U.S.I. Permadry Products (Sealed-In Vitamin A).

Inorganic Chemicals: Ammonia, Caustic Soda, Chlorine, Metallic Sodium, Sodium Peroxide, Sulfuric Acid.

Metals: Titanium Sponge, Zirconium Sponge, Zirconium Platelets, Hafnium Oxide, Hafnium Sponge.

U.S.I. INDUSTRIAL CHEMICALS CO.
Division of National Distillers and Chemical Corporation
99 Park Avenue, New York 16, N. Y.

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Naphtha, VM&P, petroleum, 225°-300°F., b.r., tanks, west coast, Los Angeles	gal.	.174	—
Portland, Ore.	gal.	.18	—
San Francisco	gal.	.179	—
Seattle, Wash.	gal.	.18	—
east coast, New Jersey and New York	gal.	.19	—
group 3	gal.	13875	—
tankwagon, Boston	gal.	.21½	—
Chicago	gal.	.299	—
Cleveland	gal.	.24½	—
Newark	gal.	.20½	—
New York	gal.	.20½	—
Philadelphia	gal.	.21½	—
Pittsburgh	gal.	.20	—
Naphthalene, crude, com., 74°, tanks, tanks, frt equald	lb.	.06¼	—
78°, bgs., c.l., same basis	lb.	.07½	.08
bgs., l.c.l., same basis	lb.	.07¾	.08¼
tanks, same basis	lb.	.07	—
Imp., 78° bgs. large lots	lb.	.05	Nom.
Naphthalene, refd., indust., chipped, crushed, bgs., frt. alld	lb.	.12½	—
tanks, same basis		.11¾	—
Refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis	lb.	.15½	—
cs, 50 lbs. c.l., same basis.	lb.	.15¾	—
1-lb pkgs. c.l. same basis	lb.	.18½	—
1-Naphthol-4 sulfonic acid (see Neille and Winther's acid).			
1-Naphthol-5-sulfonic acid (see L acid).			
1-Naphthol-5-sulfonic 8-amino acid (see S acid).			
1-Naphthol-3,6-disulfonic 8-amino acid (see H acid)			
2-Naphthol-6,8-disulfonic acid (see Gamma acid).			
Naphthol sulfonic mixed acid (see Cleve's acid)			
Naphthol sulfonic mixed acid (see Cleve5s acid)			
1-Naphthylamine-5-sulfonic acid (see Laurents acid)			
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid)			
2-Napthylamine-6-sulfonic acid (see Broenner's acid)			
2-Naphthylamine-7-sulfonic acid (see F acid).			
2-Naphthylamine-1-sulfonic acid (see Tobias acid)			
a-Naphthol bbls., frt alld	lb.	1.00	—
b-Naphthol, tech. flake bbls., c.l., works	lb.	.33	—
bbls. l.c.l., works	lb.	.35	—
Naphthol ITR red toner, bbls., works	lb.	5.50	—
a-Naphthylamine, bbls., frt alld	lb.	.50	—
b-Naphthylamine, tech., flake, bbls., works	lb.	1.60	—
Naringin, fib. dms.	lb.	8.50	—
Neatsfoot oil, 15° cold test, dms	lb.	.30	.33
20° cold test, dms.	lb.	.29	.32
30° cold test, dms	lb.	.28	.31
Neocinchophen, USP, dms., frt. adjusted	lb.	7.00	8.00
Neomycin sulfate, fib. dms. 1-kilo basis activity	gram.	.35	—
fib. dms. 100-999-gram lots, basis activity	gram.	.40	—
Neroli oil, NF, French, bots	lb.	550.00	575.00
Spanish, bots	lb.	70.00	—
Nerolin, cns	lb.	2.55	2.85
Nevile and Winther's acid, dms., frt. alld	lb	1.30	—
Niacinamide (see Nicotinamide).			
Nickel acetate, bbls., dlvd	lb.	.73	.80
Nickel carbonate, bbls., dlvd.	lb.	.80¾	.87¾
Nickel chloride, bbls., dlvd.	lb.	.40½	.48½
Nickel formate, bbls., ton lots, frt. alld	lb.	.72	.73
Nickel metal electro cathodes, cs., works	lb.	.74	—
Nickel nitrate, bbls., works	lb.	.32½	.33½
Nickel oxide, black, bbls.	lb.	.84	—
Green, bbls	lb.	.85	—
Nickel sulfate, bgs., c.l., dlvd.	lb.	.32½	—
bgs., l.c.l., dlvd.	lb.	.33½	.40½
Nicotinamide, USP, dms., frt. adjusted kilo		9.50	9.80
Nicotinamide hydrochloride, dms., frt. adjusted kilo.		9.50	9.80
Nicotine sulfate, 40%, dealers, 50-lb. dms., frt. alld	lb.	1.20	—
40%, manufacturers, 500-lb. dms., frt. alld	lb.	1.03	—
Nicotinic acid, USP, dms., dlvd. kilo		8.00	8.30
Nicotinic amide, USP (see Nicotinamide).			
Niger seed, bgs.	lb.	.11½	.12
Nikethamide, cbys.	lb.	7.50	—
Nitric acid, 36° Be., cbys., c.l., works, E 100 lbs.		5.75	—
cbys., l.c.l. works, E 100 lbs.		6.05	6.85
38° Be., cbys., c.l., works, E. 100 lbs.		6.25	—
cbys., l.c.l. works, E 100 lbs.		6.55	7.35
40° Be., cbys., c.l., works, E. 100 lbs.		6.75	—
cbys., l.c.l., works, E 100 lbs.		7.05	7.85
42° Be. cbys., c.l., works, E. 100 lbs.		7.25	—
cbys., l.c.l., works E 100 lbs.		7.55	8.35
Nitric acid, 58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs.		3.90	—
91½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs.		4.90	—
Nitric acid, CP, NF, consumer, cbys. extra, l.c.l., same basis. c.l., works	lb.	.18½	—
	lb.	.20	.20½
5-pt. bots, extra, cs. c.l., same basis	lb.	.22½	—
5-lb. bots., extra, cs., l.c.l., same basis	lb.	.24	.25
n-Nitroaniline, cryst., dms., frt. alld	lb.	1.15	—
Paste, dms., frt. alld., 100% basis.	lb.	1.10	—
o-Nitroaniline, flaked, dms., t.l., frt. alld	lb.	.49	—
dms., t.t.l., frt. alld.	lb.	.51	—
o-Nitroaniline orange toner, kegs,	lb.	1.35	—
p-Nitroaniline, dms., frt. alld	lb.	.443	—
Nitrobenzene, dbl. dist., dms., c.l., frt. alld	lb.	.14	—
dms., t.c.l., frt. alld.	lb.	.15	—
tanks, frt. alld.	lb.	.12	—
p-Nitrobenzoic acid, dms., c.l., works	lb.	.72	—
dms., t.c.l., works	lb.	.73	—
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80 125-175, seconds, bbls., c.l., works	lb.	.34	—
bbls., l.c.l., same basis	lb.	.35	.37
18-20 cps. bbls., c.l. same basis.	lb.	.38	—
bbls., t.c.l., same basis	lb.	.37	.39
Nitrocellulose, ester-soluble, 250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.40	.42
Spirit-soluble, 30-35 cps., ¼, ½, seconds, bbls., c.l., same basis	lb.	.41	—
bbls. t.c.l., same basis	lb.	.42	.44
Nitrocellulose, spirit-soluble, 5-6 cps., 40-60 seconds, bbls., c.l., same basis	lb.	.40	—
bbls., l.c.l., same basis	lb.	.41	.43
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.			
o-Nitrochlorobenzene dms. c.l., frt. alld	lb.	.15	—
dms., l.c.l. same basis	lb.	.16	—
tanks, same basis	lb.	.13	—
p-Nitrochlorobenzene, dms.	lb.	.26	.27
2-Nitro-4-chlorophenol, dms.	lb.	.75	—
Nitroethane, dms., c.l., dlvd. E	lb.	.24	—
dms., l.c.l., dlvd. E	lb.	.24¾	—
tanks, dlvd. E	lb.	.22½	—
Nitroethane prices West of Rockies are 1c. higher.			
Nitrogen solutions, tanks, frt. equald	unit.	1.24	—
Nitrogenous process tankage, bulk, works	unit-ton.	3.00	4.00
Nitrogenous sewage sludge, bulk, works, unit-ton.		2.95+	.50
Nitromethane, dms. c.l. dlvd. E	lb.	.24	—
dms., l.c.l., dlvd. E	lb.	.24¾	—
tanks, dlvd. E	lb.	.22½	—
Nitromethane prices West of Rockies are 1c. higher.			
a-Nitronaphthalene, bbls. frt. alld.	lb.	.41	—
o-Nitrophenol, dms, works, frt. equald	lb.	.94	—
p-Nitrophenol, dms., c.l., frt. alld.	lb.	.51	—
dms., l.c.l., frt. alld	lb.	.53	—
2-Nitropropane, dms., c.l., frt. alld. E	lb.	.22½	—
dms., l.c.l., same basis	lb.	.23¼	—
tanks, same basis	lb.	.21	—
2-Nitropropane, dms., c.l., frt. alld. E	lb.	.18½	—
dms., l.c.l., same basis	lb.	.19½	—
tanks, same basis	lb.	.16	—
Nitropropane prices west of Rockies are 1c. per lb. higher.			
o-Nitrotoluene, dms. c.l. frt. alld.	lb.	.10	—
dms., l.c.l. frt. alld	lb.	.11	—
tanks, frt. alld	lb.	.09	—
p-Nitrotoluene, dms. works	lb.	.33	—
m-Nitro-p-toluidine dms	lb.	1.59	—
Nitrous ether, conc. bots., 1co-lb. lots	lb.	1.28	1.35
Nonyl phenol, dms., c.l., frt. alld.	lb.	.26½	—
dms., l.c.l., frt. alld	lb.	.27½	—
tanks, frt. alld	lb.	.24½	—
Nutgalls, Aleppo, bgs	lb.	.35	.38
Chinese, bgs	lb.	No prices.	
Nutmeg, East Indian, bgs.	lb.	2.08	—
West Indian, bgs.	lb.	2.05	—
Nutmeg oil, USP dist. East Indian, cns., dms.	lb.	12.50	16.00
USP. dist., West Indian, cns., dms.	lb.	13.50	17.00
Nux vomica, bls	lb.	.10	.12
Powd., bbls., bxs	lb.	.15	.17

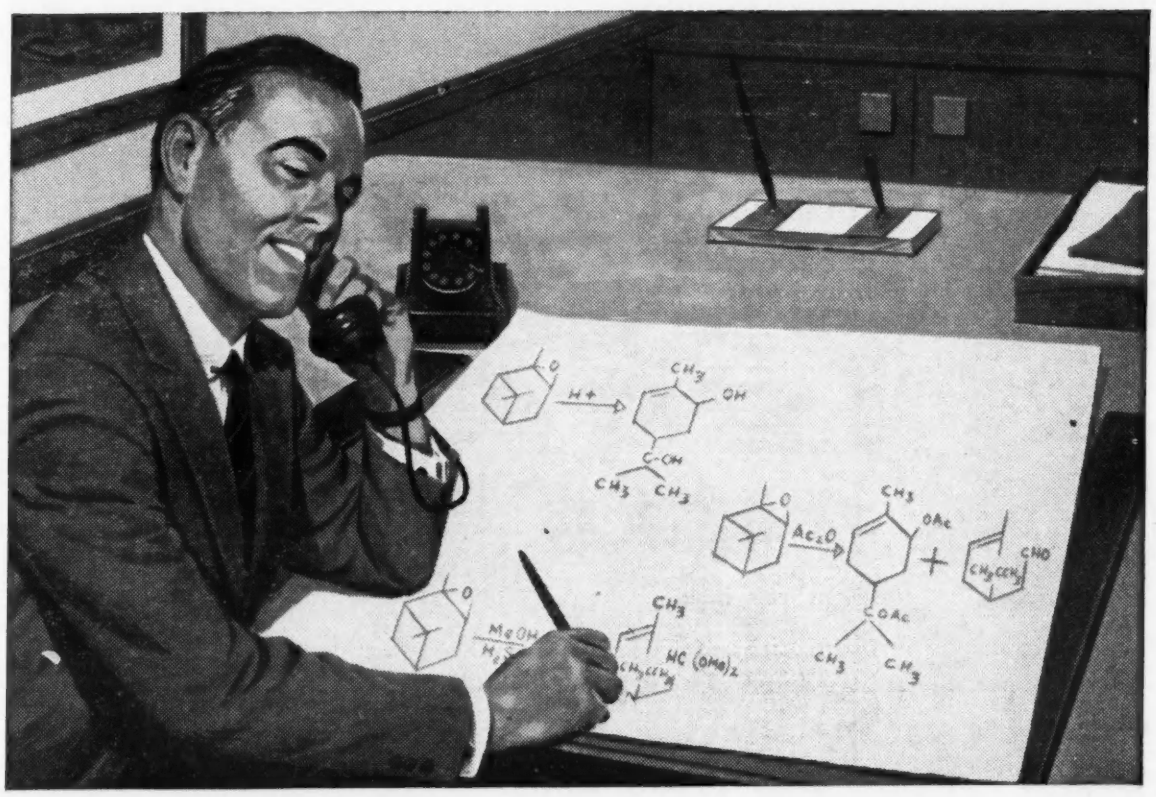
O

Ocher (see Iron oxide yellow, nat.).			
Ocotea cymbarum oil, dms.	lb.	.55	.65
Octane, indust., tanks, Bayonne, N. J	gal.	.19	—
tanks, Baytown, Tex	gal.	.15¾	—
Borger, Tex	gal.	.15¾	—
1-Octanol, tech., dms., c.l., dlvd., Zone 1	lb.	.37	—
dms., l.c.l., dlvd	lb.	.39	—
tanks, dlvd.	lb.	.34½	—
Octyl alcohol, perfumer's grade, bots	lb	1.60	3.25
Octyl alcohol, tech. (see 1-Octanol, tech).			
Octyl phenol, bgs., c.l., works	lb.	.24	—
bgs., l.c.l., works	lb.	.24½	—
tanks, works	lb.	.23	—
Octyl phenol in dms., 11c. higher.			

Oils

Oil quotations, formerly grouped under one heading, are now listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms.	lb.	.19	.19½
tanks	lb.	.17¾	—
Oleic acid, dbl.-dist. (white), dms.	lb.	.20¾	.23¼
tanks	lb.	.18¼	—
Single-dist., dms	lb.	.19½	.22
tanks	lb.	.17	—
Oleo oil, extra, dms.	lb.	.19	.19½
Oleostearine, dms.	lb.	.15½	.16
Oleum (see Sulfuric acid, fuming).			
Olibanum gum, siftings, cs	lb.	.20	Nom.
Tears, cs	lb	.22	.30
Olibanum oil, bots	lb	5.50	7.65
Extra fine, bots.	lb.	8.00	9.50
Olive oil, edible, dms., spot duty-paid	gal.	2.60	2.70
Olivine, crude, works	ton.	12.00	—
20 mesh, works	ton.	15.00	—
100 mesh, works	ton.	20.00	—
Opium, USP, cns	oz.	19.20	19.45
USP, gran. cns.	oz.	21.65	21.90
powd., cns	oz.	21.65	21.90



Heard the latest about Terpenes?

Becco has epoxidized them! More than five years of research on epoxidation have produced some interesting new products. Dipentene Monoxide and *a*-Pinene Oxide are now out of the laboratory and available, even in drum quantities.

Becco Dipentene Monoxide combines the reactivity of an epoxy group with that of an olefinic double bond in a cyclic terpene molecule. This compound undergoes the usual reactions of the epoxy group and the external double bond in a terpene molecule.

Becco *a*-Pinene Oxide combines the reactivity of an epoxy group with that of the bicyclic system of *a*-Pinene causing it to undergo some unusual reactions. It does not undergo the ring-opening reaction of an epoxide but rearranges in the presence of acid. In water solution, sobrerol is the main product; in anhydrous media, it is campholenic aldehyde.

These terpene oxides have many potential uses as intermediates in the manufacture of perfumes, flavors, pharmaceuticals, protective coatings, insecticides, bactericides, lubricant additives, adhesives, plasticizers, flotation agents, and in organic synthesis.

Typical properties of these epoxides are:

	% Oxirane Oxygen	F.P. °C	B.P. °C	Density at 20°C	Solubility
Dipentene Monoxide	8.9	<—60	74-76 (10 mm)	0.929	Insoluble in water. Soluble in most of the common solvents.
a-Pinene Oxide	9.4	<—60	61-62 (10 mm)	0.963	

Write Becco for experimental quantities and technical assistance in possible application for these compounds. Ask for Becco Bulletins Nos. 81 and 82.

BECCO CHEMICAL DIVISION
Food Machinery and Chemical Corporation
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Orange Oil—Petroleum Pitch

Orange oil, expressed, USP, Brazilian, cns., dms	lb.	No stocks.	
Expressed, USP, Calif., cns., dms.	lb.	.75	—
Florida, cns., dms.	lb.	.55	—
Messina, cns	lb	3.85	5.85
West Indian, cns., dms	lb	2.50	3.65
Sesquiterpeneless, bots	lb.	65.00	120.00
Sweet, dist., cns., dms.	lb.	.70	.80
Orange peel, bitter, Haitian, bls	lb.	.14	.16
Sweet, bls	lb.	.16	.18

Orange Pigments

Orange pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Origanum oil, Spanish, cns	lb	2.00	—
Orris root, Florentine, bls	lb.	.55	—
powd. bbls., bxs	lb.	.68	—
Verona, bls	lb.	.35	.40

Orthoanisidine (see o-Anisidine).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochlorobenzoic acid, (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary-amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine)

Osage orange, cryst., No. 1, bbls, l.c.l	lb.	.40	—
Extract, liq., No. 1, bbls., l.c.l.,	lb.	.19	—
Ouabain, USP, bots	gram	3.00	4.00
Ouricury wax, refd., pure	lb.	.73	.75
crude	lb.	.67	.69
Oxalic acid, bbls., c.l., works	lb.	.18½	—
bbls., 10,000-lb. lots, works	lb.	.18¾	—
bbls., smaller lots, works	lb.	.19¾	—
b-Oxynaphthoic acid, fib. dms., 250 lbs. or more, frt. alld	lb.	1.14	1.17
Oxyquinolin sulfate, cns. 100-lb. lots, works	lb.	4.75	5.00
cns., smaller lots, works	lb.	4.92	5.17

P

Palm oil, clarif., dms	lb.	.13	.16
Palm oil, acids, dist., dms	lb.	.16¼	.19¼
tanks	lb.	13¾	.14¼
Palmarosa oil, cns.	lb.	8.50	10.00
Papain, African, bots	lb.	8.50	—
Ceylon, bots.	lb.	7.50	8.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots	oz.	5.00	—
cns., smaller lots	oz.	5.05	5.20
Papaverine sulfate, nat. or syn., USP, cns	oz.	7.10	7.35
Paprika, Rumanian, bgs.	lb.	.34	—
Spanish, bgs.	lb.	.32	.42
Yugoslavian, bgs.	lb.	.35	—

Para-aminobenzoic acid (see p-Aminobenzoic acid)
Para-aminosalicylic acid (see p-Aminosalicylic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid)
Paramethylphenylcinchonic acid (see Neocinchophen)
Paranitrobenzoic acid see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).

Para toner, red, bbls	lb.	1.15	—
Chlorinated, kgs.	lb.	1.30	—

Paraffin, crude, scale white, 123°-127°F. ASTM, tanks, refy.	lb.	.0710	—
Paraffin, fully refd., 122°-124°F, ASTM, tanks, refy.	lb.	.0815	—
125°-127° F. ASTM, tanks, refy.	lb.	.0815	—
130°-132°F, ASTM, tanks, refy.	lb.	.0815	—
132°-134° F., ASTM, tanks, refy.	lb.	.0815	—
135°-137°F. ASTM, tanks, refy.	lb.	.0815	—

AMP temperatures are an arbitrary 3°F. higher than ASTM.

Paraffin oil, pale, 100-110 vis. at 100°F., tanks, east coast refy	gal.	.14	—

Paraffin wax (see Paraffin)

Paraformaldehyde, 91% flake, bgs., c.l., frt. alld	lb.	.11¼	—
bgs., l.c.l., frt. alld	lb.	.13¼	.14¼
91%, powd., bgs., c.l., ex whse	lb.	.167	—
bgs., l.c.l., ex whse	lb.	.182	—
USP X, fib. dms., c.l.	lb.	.19	—
fib. dms., 1,000-lb. lots	lb.	.20	—
fib. dms., smaller lots	lb.	.21½	—
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd	lb.	.14	—
55-gal dms., l.c.l., dlvd.	lb.	.15	—
tanks, dlvd.	lb.	.11½	—

Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol)
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol see p-Phenylphenol)
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).

Parathion, ethyl, dms., c.l., frt. alld.	lb.	1.36	—
dms., l.c.l., frt. alld.	lb.	1.41	—

Parathion prices 2c. per lb. higher in West.

Paratoluenesulpnonamide (see p-Toluenesulfonamide).

Paris green, dealers, dms., c.l., frt. alld	lb.	.44	.47
dms., l.c.l., same basis	lb.	.45	.48
Passion flower herb, bls.	lb.	.25	—
Patchouli oil, dms.	lb.	5.25	5.50

Peach kernel oil, USP, (see Apricot kernel oil).

Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd., N. of Tenn. and N. C., E. of Miss R., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis	lb.	.90	—

Peacock blue dlvd. prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1¼c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph, 1.6c. higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equald. with Chicago.

Peanut meal, 45%, old process, bgs., mills	ton.	52.50	—
Peanut oil, crude, tanks, f.o.b. mills.	lb.	.16	—
Refd., dms.	lb.	.21¾	.22
tanks	lb.	.19¾	—
Pectin, NF, citrus, dom., powd., bbls.	lb	2.05	2.06
Dom., tech., powd., 150 jelly grade, rapid set, bbls	lb.	1.32	—
Slow set, bbls.	lb.	1.35	—
Imp., Danish, ex whse.	lb.	1.28	—
Penicillin, potassium, cryst., bulk 1,000,000 units.		.0675	.0700
Penicillin, procaine, bulk 1,000,000 units.		.0675	.0700
Penicillin, sodium, bulk 1,000,000 units.		.0775	.0800
Pennyroyal oil, USP, imported, cns.	lb.	2.30	3.00
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald	lb.	.22	—
bgs., l.c.l., same basis	lb.	23½	.30

Pentachlorophenol in dms. 1c. higher.

Pentaerythritol, tech., bgs., c.l., dlvd. E	lb.	.32	—
bgs., l.c.l., dlvd. E	lb.	.33	—

Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol)

Pentane, indust., tanks, Tex. refy.	gal.	.14	—
Pepper, black, Malabar, spot bgs.	lb.	.27	—
Red, Gondar, spot, bgs	lb.	.32	—
Japanese, hontaka, bgs	lb.	.36	—
Pepper, red, Japanese, birdseyes, bgs., new crop	lb.	No prices.	
Mombasa, bgs., shipt.	lb.	.65	—
Nigerian, bgs.	lb.	.36	—
Turkish, bgs.	lb.	No prices.	
White, bgs	lb.	.35½	—
Peppermint leaves, dom., USP, bls., dms	lb.	.70	.75
Imp., USP, bls.	lb.	.85	—
Peppermint oil, nat., dms.	lb.	4.25	4.75
Redist., USP, dms.	lb.	4.50	5.00
Perchloroethylene, dms., c.l., or t.l., dlvd	lb.	.13½	—
dms., l.c.l., dlvd	lb.	.15¼	—
tanktruck, 1,000 gal., min., dlvd.	lb.	.12¾	—
tanks, dlvd.	lb.	.12¼	—
Peri acid, dry, bbls., frt. alld	lb.	1.35	—
Paste, bbls., frt. alld.	lb.	1.30	—
Persic oil, USP (see Apricot kernel oil).			
Peru balsam, dms.	lb.	1.50	2.25
Petitgrain oil, South American, cns., dms	lb.	2.05	3.00
Petrolatum, cream, dms., c.l., refy.	lb.	.07¾	—
dms., l.c.l., dlvd	lb.	.10⅛	—
tanks, refy	lb.	.05½	—
Extra amber, dms., c.l., refy	lb.	.06¾	—
dms., l.c.l., dlvd	lb.	.09⅛	—
tanks, refy	lb.	.04½	—
USP, lilly white, dms., c.l., refy.	lb.	.08⅛	—
dms., l.c.l., dlvd	lb.	.10½	—
tanks, refy	lb.	.05⅞	—
USP, snow white, dms., c.l., refy.	lb.	.08⅛	—
dms., l.c.l., dlvd	lb.	.11	—
tanks, refy	lb.	.06¾	—
soft yellow, dms., c.l., refy.	lb.	.06¾	—
dms., l.c.l., dlvd	lb.	.09⅛	—
tanks, refy	lb.	.04½	—

Petroleum pitch (see Asphalt, petroleum).

Petroleum Products

Petroleum product quotations, formerly grouped under one heading, are now listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

The first industrial grade toluol prepared from a petroleum base, Solvesso Toluol is the starting point for finishes of first-rate quality. It is the senior member of the Solvesso group of Aromatic Solvents, the solvents that set performance standards *throughout* the surface coatings industry. *Uniformity* and *purity* — these are their quality keynotes, assuring top-notch performance in all sorts of finishes. A highly efficient, proven supply system assures industry that these key materials are *always* immediately available for prompt delivery. See for yourself. "For Finishes That Finish First," order Esso Petroleum Solvents. Write or phone today! Esso Standard Oil Company, Inc., 15 West 51st Street, New York 19, New York.

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PETROLEUM SOLVENTS

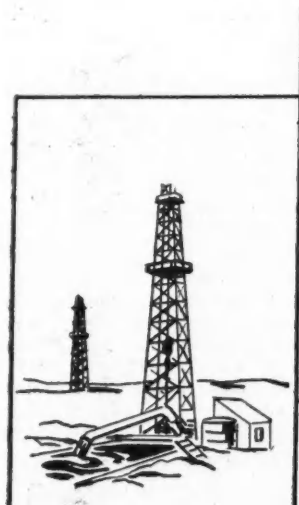
• Reg. U. S. Pat. Off.

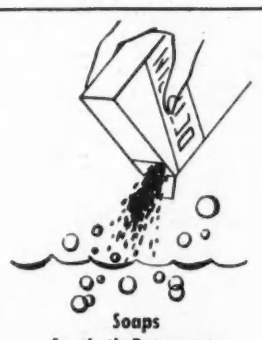
Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l., works	lb.	.16½	.18¾
non-ret. dms., l.c.l., works	lb.	.17½	.19
tanks, works	lb.	.14½	.17
50-55% sulfonic content, non-ret dms., c.l., works	lb.	.16	—
non-ret dms., l.c.l., works	lb.	.17	—
tanks, works	lb	.13	—
o-Phenetidine, dms. c.l. frt. alld. E	lb.	.91	—
dms., l.c.l., same basis	lb.	.93	—
p-Phenetidine, dms., c.l., frt. alld.	lb.	1.05	—
dms. same basis	lb	1.08	—
Phenobarbitol, USP, dms. 100-lb lots	lb	3.25	—
Phenobarbital-sodium, USP dms., 100-lb lots	lb	3.25	—
Phenol, 90-92% (cresol 8-10%), non-ret dms. frt alld E of Rockies	lb.	.18	—
non-ret dms. l.c.l. same basis,	lb.	.19	—
tanks same basis	lb.	.16	—
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis	lb.	.17½	—
non-ret. dms., l.c.l., same basis,	lb.	.18½	—
tanks same basis	lb.	.15½	—
39°C or above tar distilled non-ret. dms., c.l., same basis	lb.	.19½	—
non-ret dms. l.c.l. same basis	lb.	.20½	—
tanks, same basis	lb	17½	—
Phenol USP syn. dms. c.l., t.l., frt. alld	lb.	.20¼	—
dms., same basis	lb.	.22¼	—
tanks, same basis	lb.	.18¼	—
Phenolphthalein USP or yellow, fib dms., 2,000-lb. lots	lb.	1.30	—
fib. dms. smaller lots	lb.	1.32	1.37
Phenothiazine drencn fib dms., t.l., dlvd	lb.	.44	—
fib dms t.t.l., same basis	lb.	.47	—
NF, fib dms, t.l., same basis	lb.	.43	—
fib. dms. l.t.l., same basis	lb.	.46	—
Phenyl acetate, dms., 100-lb lots, works	lb	.50	—
Phenyl salicylate (see Salol)			
Phenylacetaldehyde, soln 50%, bots.	lb.	2.95	—
100% bots	lb.	4.00	4.65
Phenylacetic acid pure, cryst., cns.	lb	1.45	1.75
dl-Phenylalanine, dms., works	lb.	27.00	37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib dms. 200-lb lots dlvd E.	lb.	3.45	—
fib dms. smaller lots, dlvd E	lb.	3.80	—
N-Phenyldiethanolamine, dms., c.l., dlvd E	lb.	.41	—
dms., l.c.l., dlvd. E	lb.	.42	—
tanks, dlvd. E	lb.	.38½	—
m Phenylenediamine dms., frt alld.	lb.	.95	—
o-Phenylenediamine, comi., 100 to 1,000 lbs., fib dms., works	lb.	1.70	1.80
p-Phenylenediamine, refd., tech., dms., works	lb.	1.42	—
Phenylethanolamine, dms., c.l., works	lb.	.75½	—
dms., l.c.l., same basis	lb.	.76¼	—
Phenylethyl acetate, bots.	lb.	1.30	1.60
b-Phenylethylamine, dms., 1,000-lb. lb. lots, works	lb.	1.10	—
dms. smaller lots works	lb.	1.15	1.40
2-Phenylethyl alcohol, extra, dms.	lb.	1.14	1.45
Standard, dms	lb.	1.10	1.60
Phenylglyconic acid (see Mandelic acid)			
Phenylhydrazine base CP btos	lb.	3.00	3.07
Phenylhydrazine hydrochloride, comi., kgs., works	lb.	1.75	—
Purif., bots., works	lb.	5.17	—
1-Phenyl-3-methyl pyrazolone-5, fib. dms. 250-lb. lots, dlvd. E	lb.	1.80	—
fib dms. smaller lots. dlvd E	lb	2.10	—
Phenylethylphenyl acetate, bots	lb.	4.00	4.25
o-Phenylphenol dms., t.c.l. works,	lb.	.42	.44
p-Phenylphenol, bgs., c.l., works	lb.	.38½	—
bgs., l.c.l., works	lb.	.43	—
Philippine copal gum, pale, chips, bgs	lb.	.23¾	.26
Pale, nubs, bgs	lb.	.32½	.36
seeds, bgs.	lb.	.20	Nom.
sorts, bgs.	lb.	.22¾	.25
Phloroglucinol, comi., fib. dms., works	lb.	6.40	—
CP, bots. works	lb.	17.75	—
Tech., fib. dms., works	lb.	10.45	—
Phloxin red toner (see Eosin red toner)			
Phosgene, ret., cyls., works	lb.	.15½	—
Phosphate, defluorinated (see under D).			
Phosphate rock, Curacao, Atlantic ports, New Orleans	ton.	48.00	—
Florida, land pebble, run-of-mine, washed, dried unground, 66-68% b.p.l., bulk, c.l. mines,	long-ton.	5.26	—
68-70% b.p.l., bulk, c.l., same basis	long-ton.	5.66	—
70-72% b.p.l., bulk, c.l., same basis	long-ton.	6.31	—
74-75% b.p.l., c.l., bulk, same basis	long-ton.	7.31	—
76-77% b.p.l., c.l., bulk, same basis	long-ton.	8.31	—
Above Florida prices are based on fuel oil at $2.87 per bbl. and labor at $1.47.			
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald	100 lbs.	7.00	—
cbys., l.c.l., same basis,	100 lbs.	7.25	7.75
tanks, t.w., works	100 lbs.	5.60	—
Food grade, 80%, cbys., c.l., frt. equald	100 lbs.	7.85	—
cbys., l.c.l., works	100 lbs.	8.10	9.35
tanks, t.w., works	100 lbs.	6.00	—
Phosphoric acid, NF, 85%, cbys., c.l., works	100 lbs.	8.50	—
cbys., l.c.l., works	100 lbs.	8.75	9.00
tanks, t.w., works	100 lbs.	6.65	—
Phosphorus amorph., red, dms., t.l. works	lb.	.48	—
dms., smaller lots works	lb.	.49	.50
white (yellow), solid dms., c.l., works, frt. equald	lb.	.20	.20½
dms. l.c.l., works, frt. equald	lb.	.21½	—
tanks, works, frt. equald	lb.	.19	—
Phosphorus oxychloride, dms., c.l., works	lb.	.14	—
dms., l.c.l., works	lb.	.15	—
tanks, works	lb.	12½	—
Phosphorus pentasulfide, solid, dms., c.l., works	lb.	.11½	—
dms., l.c.l., works	lb.	.12½	.13½
Phosphorus pentoxide, dms., c.l., works	lb.	1395	.1450
dms. l.c.l. works	lb.	1550	.1650
Phosphorus sesquisulfide, dms., cs., c.l., works	lb.	.38	—
dms., l.c.l. works	lb.	.39	.40
Phosphorus trichloride, dms., c.l., works	lb	.14	—
dms., l.c.l., works	lb	.15	—
tanks, works	lb	12½	—
Phthalic anhydride bgs., c.l., works, frt equald	lb	.21	—
bgs., l.c.l., same basis	lb	.22	—
tanks, same basis	lb	20½	—
Phthalimide, 97-98%, dms., frt. allowd	lb.	.65	—
Phthalocyanine blue, full strength, bbls., dlvd. N. of Tenn and N. C., E. of Miss. R., including St. Paul, Minneapolis, Davenport, Rock Island St. Louis	lb.	3.45	—
Resinated, bbls., same basis	lb.	3.00	—
water dispersable, bbls., same basis	lb.	1.69	—
Phthalocyanine blue dlvd prices ½c. higher Ala., Fla., Ga., La (Shreveport 1¼c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.); Cedar Rapids, Des Moines Kansas City, Lincoln, Ohama, St. Joseph, 1.6c higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equald. with Chicago.			
Phthalocyanine green toner, bbls., works	lb	3.95	—
Resinated, bbls.	lb	3.50	—
Water dispersable, bbls.	lb.	1.71	—
Phthalylsulfacetamide 1,000-lb. lots or more	lb	5.00	—
NF	lb	5.20	—
a-Picoline, dms. c.l. works, frt. equald	lb.	.43	.43½
dms., t.c.l. works, frt. equald	lb.	.44	—
tanks, same basis	lb.	.415	422
b,g-Picoline 5°C dms. c.l., works,	lb.	.32½	—
dms., t.c.l., works	lb.	.33	—
g-Picoline, 98%, dms., l.c.l., dlvd	lb.	2.00	—
Picric acid, NF bbls	lb.	.85	—
Tech., bbls.	lb.	.44	—
Pigment green B, kgs.	lb.	1.35	—
Pilocarpine hydrochloride, USP, bots	oz.	4.75	5.25
Pilocarpine nitrate USP bots., vials.	oz.	4.63	4.75
Pimento, Jamaican, bgs.	lb.	.61	—
Mexican, bgs.	lb.	.31½	—
Pimento berry oil, NF, dms.	lb.	3.75	4.50
Pimento leaf oil, cns	lb.	1.85	2.00
Pine oil, dest.-dist. dms., t.c.l., works	lb.	.12¼	—
dms. t.c.l. ex whse New York.	lb.	.14¼	—
Steam-dist. dms. ex whse. New York	lb.	.176	—
dms. dlvd.	lb.	.179	—
Pineneedle oil, Siberian (see Abies Siberica oil)			
Pinetar oil, comi. dms. c.l. works.	lb.	.0561	—
dms. t.c.l. works	lb.	.0634	—
dms. c.l. ex whse. New York.	lb.	.0745	—
tanks, works	lb.	.046	—
Pinetar oil, rectified, NF, dms., included, t.c.l., works, south	gal.	1.05	—
dms incl. t.c.l. ex whse., New York	gal.	1.15	—
Refd., dms. incl. t.c.l. works	gal.	.92	—
dms. incl. t.c.l. ex whse., New York	gal.	1.02	—
Pink root, bls.	lb.	2.50	—
Piperazine 95% or better, dms. c.l., frt. alld	lb.	2.45	—
dms., t.c.l., same basis	lb.	2.50	—
Piperazine citrate, 100-lb. lots	lb.	1.47	—
Piperazine hexahydrate, 100-lb. lots.	lb.	1.22	—
Piperadine dist. dms. frt. equald.	lb	2.60	2.70
Piperonyl butoxide dms. dlvd E	lb	4.50	5.05
Piperonyl cyclonene dms. dlvd E	lb	3.70	4.25

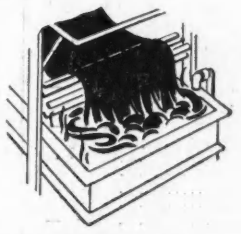
Pitches

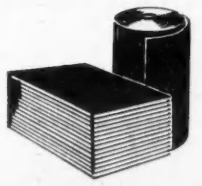
Pitch quotations, formerly grouped under one heading, are now listed individually. For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

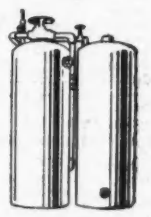
Plaster of Paris (see Gypsum).			
Platinum metal works	oz.	82.00	87.00
Pleurisy root bls.	lb	.43	.50
Podophyllum resin NF dms	lb	15.60	16.10
Poke root bls.	lb	.19	.22
Pontianak copal gum chips bgs	lb.	.26	—
Nubs bgs	lb.	.37	.40
Polymyxin bulk, bots., 50 billion units or more	1,000,000 units.	.52	—
bulk, bots., 25-50 billion units,	1,000,000 units.	.54	—
bulk, bots., 1-25-billion units,	1,000,000 units.	.56	—


Oil Well Drilling


Soaps
Synthetic Detergents
Alkaline Cleaners


Textile Processing


As Deflocculating and Dispersing Agents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Anhydrous

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Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works lb. .41 - —
dms., 10,000-20,000-lb lots, works lb. .43 - —
dms., smaller lots, works lb. .46 - .48
Polyoxyethylene sorbitan tristearate, dms. 20,000-lb. lots, works lb. .41 - —
dms., 10,000-20,000-lb lots, works lb. .43 - —
dms., smaller lots, works lb. .46 - .48
Poppy seed, Argentine, bgs. lb. .21 - —
Dutch, bgs. lb. .21 - —
Iranian lb. .14½ - .15
Polish, bgs. lb. .20 - —
Turkish, bgs. lb. .19½ - —
Potash, caustic, liq., 45% basis, dms., c.l., works 100 lbs. 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis 100 lbs. 3.70 - —
Potash, caustic, reg., flake, 88-92%, dms., c.l., same basis 100 lbs. 9.15 - —
dms., l.c.l., same basis 100 lbs. 10.20 - —
Solid, 88-92%, dms., c.l., works, 100 lbs. 8.70 - —
dms., l.c.l., works 100 lbs. 9.75 - —
Potassium acetate, NF, dms lbs. .31 - .36
Potassium bicarbonate, USP, gran., dms lb. .22 - —
USP, powd., dms lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works lb. .18 - —
bgs., l.c.l., works lb. .18½ - .19¾
Potassium bichromate in dms ½c. higher.
Potassium bitartrate, NF, dom., gran. or powd., dms., c.l. lb. .40 - —
dms., 5,000 lbs., 1 shipt. lb. .40½ - —
smaller lots lb. .41 - .43
Imp., gran. or powd., kgs lb. .33½ - .37
Potassium bromate, dms., 1,000-lb. lots or more, works lb. .50 - —
dms., smaller lots, works lb. .52 - .62
Potassium bromide, USP, gran., bbls., kgs. lb. .39 - .40
Potassium carbonate, NF, gran., bbls., dms lb. .20 - —
NF, powd., bbls., dms lb. .21 - .22
Tech., calcined, bbls., c.l., works, 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs. 10.05 - —
hydrated, 83-85%, bbls., c.l., works 100 lbs. 7.60 - —
bbls., l.c.l., works 100 lbs. 8.65 - —
Potassium chlorate, cryst., dms, c.l., works lb. .12¼ - —
dms., l.c.l., works lb. .13½ - .14½
Powd., dms., c.l., works lb. .12¾ - —
dms., l.c.l., works lb. .14 - .15
NF, cryst., works lb. .12¾ - —
dms., 2,000 lbs. or more, works lb. .16¾ - —
Powd., dms., 2,000 lbs. or more, works lb. .17¼ - —
Gran., 25 lb. metal dms lb. .36 - —
Potassium chloride, agricultural (see Potassium muriate).
Potassium chloride, indust., 99.9% KCl, bulk, c.l., works ton. 29.00 - —
bgs., c.l., works ton. 33.50 - —
99.3% KCl, bulk, c.l., works ton. 27.00 - —
bgs., c.l., works ton. 31.50 - —
USP, cryst., dms. lb. .20 - .22
gran., dms. lb. .21 - .23
powd., dms lb. .24 - .26
Potassium chromate, tech., bgs lb. .50 - .50½
Potassium citrate, USP, gran., dms. lb. .43 - —
USP, powd., dms lb. .40½ - .41½
Potassium cyanide, dms. 20,000-lb. lots or more works lb. .45 - —
dms., 2,000-19,999-lb lots, works lb. .455 - —
dms., smaller lots, works lb. .465 - —
Potassium dichromate (see Potassium bichromate).
Potassium ferricyanide, dms., ton lots, works lb. .50 - —
dms., smaller lots, works lb. .65 - —
Potassium ferrocyanide, bgs., ton lots lb. .23 - —
bgs., smaller lots lb. .23½ - —
Potassium fluoborate, fib. dms., c.l., works lb. .30 - —
fib. dms., l.c.l., works lb. .31 - —
Potassium fluoride, dms., works lb. .37 - .38
Potassium gluconate, dms. lb. 1.67 - —
Potassium guaiacolsulfonate, NF, dms lb. 2.10 - 2.30
Potassium hydroxide, tech. (see Potash, caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½ - .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb lots lb. 1.38 - —
Potassium iodide, dms. lb. 1.90 - 1.95
Potassium manure salt, 22% K_2O, bulk, c.l., works unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms. lb. .20 - .21
Powd. dms. lb. .25 - —
Potassium muriate, standard and gran., 59-63% K_2O, bulk, c.l., works, base price unit-ton. .35 - —
bulk, c.l., works, July forward unit-ton. .35½ - .37
Potassium muriate, gran., 60-63% K_2O, bgs., c.l., works, contract price ton. 26.25 -26.50
bgs., c.l., works list price ton. 27.45 -27.50
Potassium nitrate, NF, cryst., bbls., 20-ton lots 100 lbs. 16.50 - —
bbls., smaller lots 100 lbs. 17.50 -18.00
Potassium nitrate, NF, gran., bgs., 20-ton lots 100 lbs. 9.25 - —
bgs., smaller lots 100 lbs. 10.50 -11.00
NF, powd., bgs., 20-ton lots 100 lbs. 10.25 - —
bgs., smaller lots 100 lbs. 11.50 - 12.00
Potassium oxalate, neutral, tech., fine gran., bbls., dms. lb. .32 - .34
Potassium pentaborate, gran., bgs., c.l., works ton. 191.50 - —
dms. ton lots, ex whse ton. 302.00 - —
dms., smaller lots ex whse ton. 307.00 - —
Powdered potassium pentaborate $10.25 per ton higher
Potassium perchlorate, dms., c.l., works lb. .18½ - —
dms., l.c.l., works lb. .19 - .20
Potassium permanganate, coml, kgs., works lb. .26 - .29
USP, dms., works lb. .29¼ - .31
Potassium persulfate, dms., c.l., works lb. .17½ - —
dms., l.c.l., works lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works lb. .15½ - .18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate red (see Potassium ferricyanide).

Potassium silicate, electrical grade, 29° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dms. or more, works 100 lbs. 7.25 - 7.65
tanks, works 100 lbs. 6.15 - —
40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 6.45 - —
dms., l.c.l. 5 dms. or more works 100 lbs. 7.20 - 7.60
tanks, works 100 lbs. 6.10 - —
Potassium silicate, glass, bgs., c.l., works 100 lbs. 17.00 -17.30
bgs. l.c.l., works 100 lbs. 17.80 - —
Potassium silicate, soln., clarif., 29° Be, 1:2.5, dms., c.l., works, 100 lbs. 5.80 - —
dms., l.c.l., 5 dms. or more works 100 lbs. 6.55 - 6.95
tanks, works 100 lbs. 5.45 - —
Potassium silicofluoride, bgs., works lb. .09½ - .10
Potassium silicofluoride in drums, 0.4c. per lb higher.
Potassium stannate, dms., frt alld. E lb. .733 - .805
Potassium sulfate, agricultural, 50% K_2O, bulk, works, base price unit-ton. .64 - —
bulk, works, July forward, unit-ton. .67 - —
Potassium sulfate, NF VII, cryst., dms lb. .31 - .33
gran., dms. lb. .18½ - —
powd. dms. lb. .16 - .17
Potassium sulfocyanate, NF, cryst. (see Potassium thiocyanate).
Potassium thiocyanate, NF cryst., dms., works lb. .96 - .98
Tech., dms., works lb. .77 - .79
Potassium titanate, ctns., c.l., works, lb. .16¼ - —
ctns., 5-ton lots, works lb. .16½ - —
ctns., 1-ton lot or less, works lb. .16¾ - —
Potassium toluene sulfonate, dms., c.l. or t.l., works lb. .42 - —
dms., l.c.l., works lb. .46 - —
Potassium-magnesium sulfate, basis 40%K_2SO_4 and 18% MgO, bulk, works, base price ton. 13.45 - —
bulk, works, July forward ton. 14.00 - —
Potassium-sodium tartrate, NF gran. or powd. dms., c.l lb. .42½ - —
dms., 5,000-lb. lots lb. .43 - —
dms., smaller lots lb. .43½ - .49
Potassium-titanium fluoride, fib. dms., works lb. .39 - .40
Potassium-zirconium fluoride, fib. dms., c.l., works lb. .50 - —
fib. dms., l.c.l., works lb. .52½ - .55
Potato starch (see Starch, potato).
Pregnenolone, bots. gram. .45 - —
Pregnenolone acetate, bots. gram. .40 - —
Procaine hydrochloride, USP, dms., 1,000-lb. lots, frt. alld lb. 2.83 - —
dms., 100-500 lb. lots lb. 2.95 - 3.15
Progesterone, USP, bots., 100 gram lots gram. .50 - —
Progesterone acetate, bots. gram. .70 - —
Propane, indust., tanks, group 3, gal. .05 - —
tanks, New York harbor gal. .098 - —
Propionic acid, syn., pure dms., c.l., works lb. .22¾ - —
dms., l.c.l., works lb. .23¾ - —
tanks, works lb. .20¾ - —
n-Propyl acetate, dms., c.l., dlvd, lb. .14¾ - —
dms., l.c.l., dlvd. lb. .15¾ - —
tanks, dlvd. lb. .12¼ - —
n-Propyl alcohol, dms., c.l., dlvd lb. .14 - —
dms., l.c.l., dlvd lb. .15 - —
tanks, dlvd. lb. .11½ - —
n-Propyl gallate, dms., 100 to 2,000-lb. lots works lb. 3.90 - 4.40
n-Propyl p-Hydroxybenzoate, USP, dms lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more kilo. 55.00 - —
bots., smaller lots kilo. 55.10 -55.30
Propylene dichloride, consumers, dms., c.l., dlvd. E lb. .0845 - —
dms., l.c.l., same basis lb. .0950 - —
tanks, same basis lb. .07 - —
Propylene dichloride prices in west 1c. higher dlvd. on same basis.
Propylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .13½ - —
USP, dms., c.l., dlvd E lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .15½ - —
Propylene glycol methyl ether, dms., c.l., dlvd lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .18½ - —
Propylene oxide, dms., c.l., dlvd E. lb. .18 - —
dms., l.c.l., dlvd. E lb. .19 - —
tanks, dlvd. E lb. .15½ - —
Psyllium seed, black, bgs lb. .28 - .30
Blonde, bgs lb. .18 - —
Husks, bgs. lb. .40 - —
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots lb. .03¾ - .04¼
bgs., smaller lots lb. .03⅞ - .04½
Imp., Italian, silk-screen, coarse, bgs., ton lots lb. .06½ - —
fine, bgs., ton lots lb. .04 - —
sun dried, coarse, bgs. ton. 58.00 - —
fine, bgs. ton. No prices.
Pumpkin seed, bgs lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bbls., works lb. .45 - —
Powd., 1.3% pyrethrins, bbls., works lb. .65 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works gal. 8.75 - 8.85
100/1 basis (10 grams pyrethrins per 100cc odorless base) dms., works gal. 41.75 -42.75
Pyrethrum oleoresin, dewaxed, 20%, dms., works lb. 10.00 - —
purif., 20% dms., works lb. 10.00 -10.10
Pyridine, denat., dms., c.l., works and frt. equald gal. 2.77 - —
dms., l.c.l., same basis gal. 2.80 - —
Refd., 2°, non-ret. dms., l.c.l., same basis lb. .75 - —
Pyridoxine hydrochloride, bots., 100-gram lots gram. .29½ - —
Pyrites, Canadian, 48-50% S, works, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls lb. 3.17 - 3.25
Pyrogallol, NF, 100 lb. dms lb. 3.50 - —

Pyroxylin scrap, shavings, amber, cs., works lb. No stocks
Shavings, mixed colors, dms., works lb. .11 - —
translucent colors, dms., works, lb. .16 - —
translucent pastels, cs., works, lb. .14 - —
white, China, ivory, dms., works, lb. .16 - —
white, dense, opaque, dms., works lb. .13 - .15
unground, amber, dms., works lb. .20 - —
black, dms., works lb. .12 - —
mixed, mottled, dms., works lb. .13 - —
USP, bots. lb. 9.50 - —

Q

Quassia chips lb. .17 - —
Quebracho extract, clarif., grd., 70% tannin, bgs., works lb. .16½ - .17
Clarif., liq., 35% tannin, bbls., works lb. .08¼ - .08½
Clarif., solid, 64% tannin, bgs., c.l., ex dock lb. .107429 —
Ordinary solid, 63% tannin, bgs., c.l., same basis lb. .098035 —
Quercitron extract, cryst., No. 1, bbls., l.c.l. lb. .40 - —
Liq., No. 1, bbls. l.c.l. lb. .19 - —
Quicksilver (see Mercury metal).
Quince seed, bgs lb. 2.00 Nom.
Quinidine sulfate, USP cns. 1,000-oz. lots oz. .74½ - .75
Quinine, NF, cns., 100-oz. lots oz. .54 - —
Quinine bisulfate, USP, cns., 100-oz. lots oz. .28 - .29
Quinine hydrochloride, cns. 1,000-oz. lots oz. .29 - .31½
Quinine sulfate, USP cns. 1,000-oz. lots oz. .28 - .29
Quinoline, dms., c.l., frt. equald lb. .50¾ - —
dms., l.c.l., same basis lb. .51¼ - —
tanks, same basis lb. .50 - —

R

R salt, paste, dms., frt. alld., 100% basis lb. .88 - —
Powd., frt. alld. 100% basis lb. .98 - —
Rapeseed oil, tanks lb. .16 - —
Rare earth oxalate, 45-50%, bgs., works lb. 1.00 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.75 - —
Red, carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

Red Pigments

Red pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red, saunders, NF, powd., bbls lb. .35 - .40
Reserpine, cryst., bots gram. 1.50 - 1.70
Resorcinol, tech. grade, dms., c.l., works, frt. equald lb. .77½ - —
dms., l.c.l., same basis lb. .78½ - —
USP, cryst., dms., works lb. 2.75 - —
powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 3.00 - 3.25
Rhatany root, bgs. lb. .15 - .16
Rhodamine red toner, molybdated, PMA, kgs lb. 5.80 - —
Tungstated, PTMA works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans lb. 37.00 -39.00
Rhubarb root, India, whole, ugs lb. .30 - —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo. 40.00 - —
USP, readily soluble, bots., dlvd. kilo. 130.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo. 107.50 - —
Rice bran oil, clarif., dms., l.c.l. lb. .16 Nom.
Clarif., tanks, dlvd. E lb. .14 Nom.
Rice starch (see Starch, rice).
Ricinoleic acid (see Castor oil acids, split).
Rochelle salt (see Potassium-sodium tartrate).
Roofing pitch (see Coaltar pitch, roofing).
Rose oil, nat., Bulgarian, bots oz. 40.00 -47.50
Rosemary oil, Spanish, NF, cns., dms. lb. .85 - 1.05
Spanish, tech., cns., dms. lb. .50 - .90
Rosin, gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, unit-lb. .12 - —
resin, 25-45%, fib. dms., works, unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, exwhse. lb. .03¾ - —
bgs., ton lots, same basis lb. .04¼ - —
Rubber solvent, petroleum, tanks, Calif. ex tax, San Francisco gal. .178 - —
tanks, east coast, N. J., N. Y. gal. .19 - —
tanks, group 3 gal. .13375 - —
Rue oil, bots. lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo. 17.00 - —
fib. dms., 5 kilo lots kilo. 17.50 - —
fib. dms., 1 kilo kilo. 18.50 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

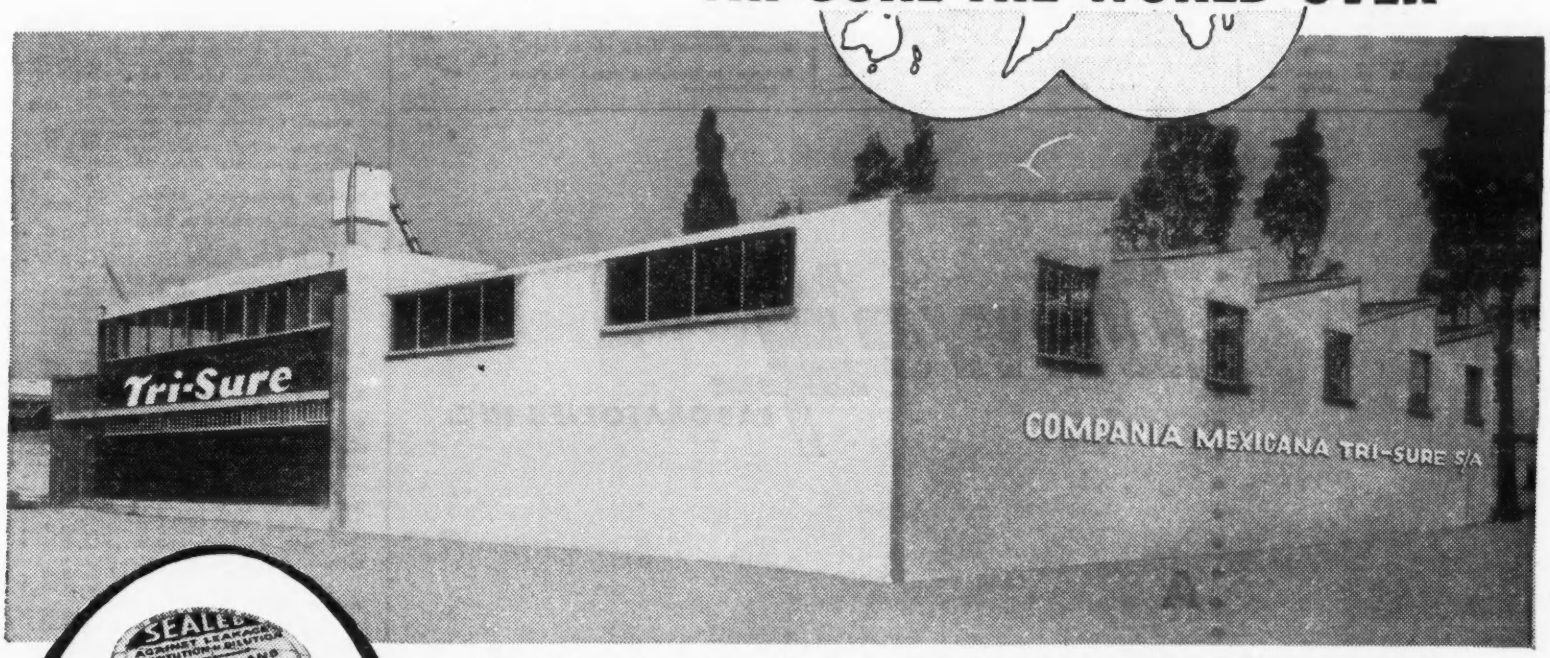
S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls. lb. .30 - .32
Powd., bbls. lb. .49 - .49½
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
Saccharin, USP, cryst., soluble, dms., 1,000-lb. lots lb. 1.60 - —
dms., smaller lots lb. 1.70 - 1.80
USP, powd., soluble insoluble, dms., 1,000-lb. lots lb. 1.65 - —
dms., smaller lots lb. 1.75 - 1.95
Safflower oil, dms., New York lb. .1785 - .1835
tanks, same basis lb. .1585 - —
Safrol, dms. lb. .88 - .90
Saffron, Spanish, USP, tins lb. 45.00 - —
Sage, Cretan, bgs. lb. .11 - —
Dalmatian, cns lb. 4.00 - 4.20
Italian lb. .18 - .20½
Sage oil, clary, bots lb. 25.00 -32.00
Dalmatian, cns. lb. 3.75 - 4.25
Spanish, cns. lb. 1.20 - 1.45

Sago flour, raw, bgs. lb. .07 - .07¼
Refd., bgs. lb. .08¼ - .09
Sal soda (see Soda ash).
Salicylamide, 100-lb. dms. lb. 1.05 - 1.15
Salicylic acid, crude, fib. dms., c.l., t.l., frt. alld. lb. .37¼ - —
fib. dms., l.c.l., frt. alld. on 100 lbs. or more lb. .38½ - —
Sublimed, tech., fib. dms., c.l., t.l., dlvd. lb. .39¼ - —
fib. dms., l.c.l., dlvd. lb. .43½ - —
USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more lb. .50½ - —
less than 1,000 lbs lb. .53½ - —
100 lb. fib. dms., 1,000 lbs. or more lb. .52½ - —
less than 1,000 lbs. lb. .55½ - —
USP, powd., 100 lb. fib. dms., 1,000 lbs. or more lb. .57½ - —
less than 1,000 lbs lb. .60½ - —
Salol, NF, gran., bbls., kgs. lb. 1.20 - —
Powdered salol, 25c per lb higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.07½ - —
Table, vacuum, common, fine, paper bgs. c.l. 100 lbs. 1.32½ - —
Saltcake, dom. bulk, works, 100% Na_2SO_4 basis ton. 28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, East Indian, chips bgs. .65 - .66
East Indian, powd., fib. dms lb .75 - .76
Sandalwood oil, cns. lb. 12.50 -13.50
Sardine oil, crude, tanks, Pac. coast lb No stocks.
Senega root, bis lb. 2.65 2.70
Sassafras oil, artif., dms. lb .50 - .62
Nat., dom., dms. lb. 1.65 - 1.85
Sassafras oil, Brazilian (see Ocotea cymbarum oil).
Savin oil, USP, cns. lb. 7.50 - —
Savory oil, cns. lb 4.25 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .95 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots oz. 13.00 -15.90
Sebacic acid, purif., dms., c.l., works lb. .69 - —
dms., l.c.l., works lb. .71 - .75
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½ - —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 10.50 -12.00
Senna leaves, Alexandria, whole and half, bls lb. .19 - —
siftings lb. .17 - —
Tinneveily, No. 1, bls. lb. .16 - .18
No. 2, bls. lb. .13 - .15
No. 3, bls. lb. .11 - .13
pods, bls lb. .22 - —
powd., bbls., bxs lb. .17 - —
Serpentaria root, bls lb. 7.50 - 8.00
Sesame oil, USP, dms. lb. .38 - .39
Sesame seed, Mediterranean, hulled, bgs lb. .21½ - —
nat., bgs. lb. .17 - —
Nicaraguan, hulled, shipt., bgs., lb. .26½ - .28
nat., bgs. lb. .20½ - —
Salvadorian, nat., bgs lb. .19½ - —
Indian, nat., bgs. lb. N.P.
Shellac, bleached, bonedry, bgs., 1,500-lb. lots lb. .48 - —
bbls, 1,500-lb. lots lb. .49 - —
kgs., 1,500-lb. lots lb. .50 - —
Bonedry shellac prices for less than 1,500 lb lots 1c. per lb. higher for all packages.
Shellac, bleached, refd. bgs., 1,500-lb. lots lb. .58 - —
bbls., 1,500-lb. lots lb. .59 - —
kgs., 1,500-lb. lots lb. .60 - —
Orange, lemon No. 1, bgs., 10-bg. lots lb. .39 - .41
lemon No. 2, bgs., 10-bg. lots lb. .37 - —
superfine, bgs., 10-bg. lots lb. .34 - .35
TN, bgs., 10-bg lots lb. .34 Nom.
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06¼ - .17¼
paper bgs., l.c.l., works lb. .06½ - .17½
Raw, paper bgs., c.l., works lb. .06¼ - .16¼
paper bgs., l.c.l., works lb. .06½ - .16½
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton. 25.00 - —
bgs., l.c.l., works, ex whse. ton. 45.00 -55.00
hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton. 20.00 - —
bgs., l.c.l., works ton. 25.00 - —
99½%, 140 mesh, bgs., c.l., works ton. 15.00 - —
bgs., l.c.l., works ton. 20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .22 - .30¼
tanks, works lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .90¾ - —
Silver cyanide, bots., 1,000-oz. lots oz. .87½ - —
bots., 500-oz. lots oz. .87⅝ - —
bots., 100-oz. lots oz. .87⅝ - —
Silver nitrate, CP, cryst., bots., 2,500-oz. lots oz. .62¼ - —
bots., 1,000-oz. lots oz. .63⅜ - —
bots., 500-oz. lots oz. .64 - —
bots., 250-oz. lots oz. .64½ - —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots. dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns. lb. 65.00 - —
Soapbark, crushed, bls. lb. .38 - —
Powd., bls. lb. .40 - —
Whole, bls. lb. .35 - —
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts. 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 4.70 - —
Liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
73%, sellers' tanks, works, dry basis 100 lbs. 3.00 - —
Soda, caustic, liq., 73%, rayon type, sellers' tanks, works, dry basis 100 lbs. 3.00 - 3.10
Solid, 76%, dms., c.l., works, 100 lbs. 4.30 - —
Soda, sal, conc., bgs., c.l., works, 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½ - —
bgs., l.c.l., same basis lb. .16½ - —
NF, 60%, gran., dms., c.l., works lb. .15½ - —
dms., l.c.l., works lb. .17½ - —
Sodium alginate, NF, white powd., dms., 300 lbs. or more lb. .93 - —
Sodium p-aminobenzoate, dms., 1,000-lb. lots or more lb. 2.35 - —
dms., smaller lots lb. 2.45 - 2.55

New Mexican *Tri-Sure*® Plant

brings Tri-Sure® service to Mexico and Central America

TRI-SURE THE WORLD OVER



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Another link in the international chain of plants that comprises "Tri-Sure* the World Over," this modern new factory near Mexico City is producing Tri-Sure Seals, Plugs, Flanges, Nozzles and Caps—which give the contents of drums and pails positive protection from *leakage*, *seepage* and *contamination*.

The plant is strategically located to serve customers in Mexico and Central America, and to provide prompt sales-engineering service.

The newest of ten Tri-Sure plants, offices and affiliates, the Tri-Sure Mexican plant plays the important role of bringing to Latin American industry the protection of Tri-Sure Closures—the world's most widely *tested*, *approved* and *used* sealing device for steel shipping containers.

**The "Tri-Sure" Trademark is a mark of reliability backed by over 35 years serving industry.*

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Tri-Sure S/A Industria e Comercio, San Paulo, Brazil
American Flange & Manufacturing Co. Inc., Villawood, N. S. W., Australia
Compania Mexicana Tri-Sure S/A, Naucalpan, E. de Mexico, Mexico
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Van Leer Industries, Ltd., Seymour House, 17 Waterloo Place, Pall Mall S. W. 1, London, England

Always specify **Tri-Sure** *for every drum you ship*

CLOSURES

Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 2.70 - —
Sodium antimoniate, bbls., c.l., dlvd. E lb. .28 - —
bbls., l.c.l., dlvd. E lb. .29½ - —
Sodium arsenate, 45% arsenic pentoxide, dms., c.l., works. lb. .12½- —
dms., l.c.l., works lb. .13¾- .14½
Sodium arsenite, 90%, pink powder, 75% arsenious oxide, dms., works lb. .12¼- —
dms., l.c.l., works lb. .13 - .14½
Soln., dms., works gal. .59 - .67
Sodium ascorbate, dms., 25-50 kilo lots kilo.10.00 - —
dms., 10-kilo lots kilo.10.35 - —
dms., 5-kilo lots kilo.10.75 - —
dms., 1-kilo lots kilo.11.00 - —
bots., 500-gram bots kilo.11.50 - —
Sodium benzoate, tech., c.l., t.l., frt. alld lb. .35 - —
dms., l.c.l., same basis lb. .39 - —
USP, c.l., t.l., frt. alld lb. .38 - —
ton lots, same basis lb. .43 - —
1,000-lb. lots, same basis lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works 100 lbs. 2.95 - —
bgs., l.c.l., works 100 lbs. 3.85 - —
USP, powd., bgs., c.l., works. 100 lbs. 2.55 - —
bgs., l.c.l., works 100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l., t.l., works lb. .13 - —
bgs., l.c.l., works lb. .13½- .14¼
Sodium bifluoride bbls., c.l., works, frt. equald lb. .19½- —
bbls., l.c.l., same basis lb. .1990- —

Sodium bisulfate, bulk, c.l., works 100 lbs. 2.00 - —
dms., c.l., frt. equald 100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald 100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs., c.l., works 100 lbs. 5.00 - —
bgs., l.c.l., works 100 lbs. 5.40 - —
Soln., 35°, bbls., c.l., works, 100 lbs. 1.70 - —
bbls., l.c.l., works 100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium bromide, USP bbls., works, lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works 100 lbs. 3.10 - —
bgs., l.c.l., works 100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., dms., c.l., works lb. .09 - —
dms., l.c.l., works lb. .09½- .10½
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works lb. .58 - —
dms., 20-ton lots or more works. lb. .66 - —
dms., smaller lots, works lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works lb. .27 - —
dms., l.c.l., works lb. .28 - —

Sodium chromate, anhyd., fib. dms., c.l., t.l., works lb. .14¾- —
fib. dms., l.c.l., works lb. .15¼- .16½
Tetrahydrate, bgs., c.l., t.l., works. lb. .1015- —
bgs., l.c.l. lb. .1065- .1190
Sodium citrate, anhyd., dms lb. .62 - —
NF VIII, gran., dms lb. .26½- .27½
USP, XIV gran., dms lb. .29½- .30½
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanide, flake, 96-98%, dms., c.l. or 20,000-lb lots lb. .193 - —
dms., over 1,000-lb. lots lb. .203 - —
dms., 100-lb. to 1,000-lb. lots. lb. .213 - —
Gran. sodium cyanide 1c higher.
Sodium cyanate, dms. 1,000-lb. lots, works lb. .85 - —
dms., smaller lots, works lb. .90 - 1.10
Sodium diacetate, 33-35% acidity, 250-lb. dms. works lb. .15 - —
250-lb. dms. l.c.l. works lb. .15¾- —
Anhyd., dms. c.l., works lb. .18 - —
dms., l.c.l., works lb. .18¾- —
Sodium ferrocyanide, bgs., 10-ton lots lb. .13½- —
bgs., smaller lots lb. .14 - —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald lb. .1390- —
fib. dms., l.c.l., works, frt. equald lb. .1430- —
Sodium formate, bgs., c.l., works. 100 lbs. 7.00 - —
bgs., l.c.l., works 100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms. lb. 5.50 - —
Sodium gluconate, refd., dms. lb. .84 - —
Tech., dms., bgs. lb. .37¾- .38¼
Sodium hydride powd. dms., works. lb. 1.90 - 2.75
Sodium hydrosulfide (see Sodium sulfhydrate).

Sodium hydrosulfite, dms., c.l., frt. alld lb. .23¾- —
dms., l.c.l., frt. alld lb. .24¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb. .23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots lb. .97 - —
Sodium hyposulfite, anhyd., photo grade, bgs. c.l., works. 100 lbs. 8.05 - —
bgs., l.c.l., works 100 lbs. 8.45 - —
Sodium hyposulfite, anhyd., tech., bgs., c.l., works 100 lbs. 7.25 - —
bgs., l.c.l. works lb 100 lbs. 7.65 - —
Hexahydrate, pea, cryst., bgs., c.l., works 100 lbs. 5.15 - —
bgs., l.c.l., works 100 lbs. 5.55 - —
photo grade, bgs. c.l., works. 100 lbs. 7.75 - —
bgs., l.c.l., works 100 lbs. 8.05 - —
Pentahydrate, tech., bgs., c.l., works 100 lbs. 5.15 - —
bgs., l.c.l., works 100 lbs. 5.55 - —
Sodium iodide, USP, bots., dms lb. 2.42 - 2.54
Sodium lactate, edible, 60%, cbys., dms., works lb. .26½- —
Sodium lauryl sulfate, dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd lb. .19½- .20¾
tanks, dlvd lb. .18 - —
Sodium metabisulfite (see Sodium bisulfite).
Sodium metaborate, octahydrate, gran., bgs., c.l., works. ton.87.00 - —
bgs., ton lots, ex whse ton.143.00 - —
bgs., smaller lots, ex whse. ton.148.00 - —
Tetrahydrate, dms., c.l., works. ton.204.00 - —
dms., ton lots, ex whse ton.242.50 - —
dms., smaller lots ex whse ton.247.50 - —
Sodium, metallic, bricks, 14,000-lb. lots or more, works lb. .19½- —
Fused, 14,000-lb. lots or more, works lb. .19 - —
tanks, works lb. .17 - —
Sodium metanilate, bbls., frt. alld. lb. .62 - —
Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works 100 lbs. 6.20 - —
dms., l.c.l., works 100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs. 4.80 - 6.75
dms., c.l., works 100 lbs. 4.95 - —
dms., l.c.l., works 100 lbs. 5.30 - 7.25
Sodium molybdate anhyd., dms., works, frt. equald lb. .92 - .96
Cryst., dms., works, frt. alld lb. .73 - .74
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate monohydrated).
Sodium naphthionate, bbls lb. .70 - —
Sodium nitrate, dom., crude, bgs., c.l., works ton.48.75 - —
bulk, c.l., works ton.45.25 - —
Sodium nitrate, imp., 100-lb. bgs., c.l., Atl., Gulf, Pac., whse. ton.49.75 - —
bulk, c.l., same basis ton.46.25 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.00 - —
bbls., l.c.l., same basis 100 lbs.11.00 - —
Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Sodium orthosilicate, hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works 100 lbs. 7.60 - 7.90
Sodium oxalate, 98% bgs., works. 100 lbs.12.35 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, bgs., c.l., works, frt. equald lb. .26 - —
bgs., l.c.l., same basis lb. .27½- .34
Pellets, bgs., c.l., same basis lb. .26 - —
bgs., l.c.l., same basis lb. .27½- .34
Sodium pentachlorophenate, powd., bgs., dms., c.l., same basis lb. .25 - —
bgs., dms., l.c.l. same basis lb. .26½- .33
Sodium pentachlorophenate, 20,000 lbs., min. truckloads, ¼c. per lb. over carlot prices.
Sodium perborate, NF, tech., bgs., c.l., works lb. .19 - —
bgs., l.c.l., works lb. .21 - —
Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss lb. .20½- —
dms., l.c.l. same basis lb. .21 - .21¼
Sodium phenolsulfonate, USP IX, gran., dms lb. .48 - .49
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 7.95 - —
bgs., l.c.l., same basis. 100 lbs. 8.45 - 8.95
Dibasic, duohydrate, bgs., c.l., frt. equald 100 lbs. 7.60 - —
bgs., l.c.l., same basis 100 lbs. 8.10 - —
Dibasic, USP, dried powd. bgs., dms., works lb. .19 - .20¼
Monobasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.00 - —
bgs., l.c.l., same basis. 100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald 100 lbs. 9.05 - —
bgs., l.c.l., frt. equald. 100 lbs. 9.45 -10.05
Tribasic, cryst., bgs., c.l., t.l., frt. equald 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald. 100 lbs. 5.00 - 5.50
Sodium phosphate in dms., 60c. to 80c. higher than bgs.
Sodium prussiate, yellow (see Sodium ferrocyanide).
Sodium pyrophosphate, acid, bgs., c.l., works, frt. equald. 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.35 -12.35
Ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39
Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l., same basis. 100 lbs. 9.21 - 9.71
Sodium salicylate, 1,000 lbs. or more USP, dms lb. .78½- —
less than 1,000 lbs., dms lb. .81½- —
Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
bgs., l.c.l., dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. Zone 4 100 lbs. 5.35 - 5.60

Sales zones are: (1) Atl. states E. of Miss., R. and N. of south bound of Ky. and Va., Ala., La., and Miss., south of 31° Tex E. of 100°; S. of 31° Fla.; also Me., N. H., and Vt., in which there are special county zones: Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport), Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb W. of 98°, N. D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

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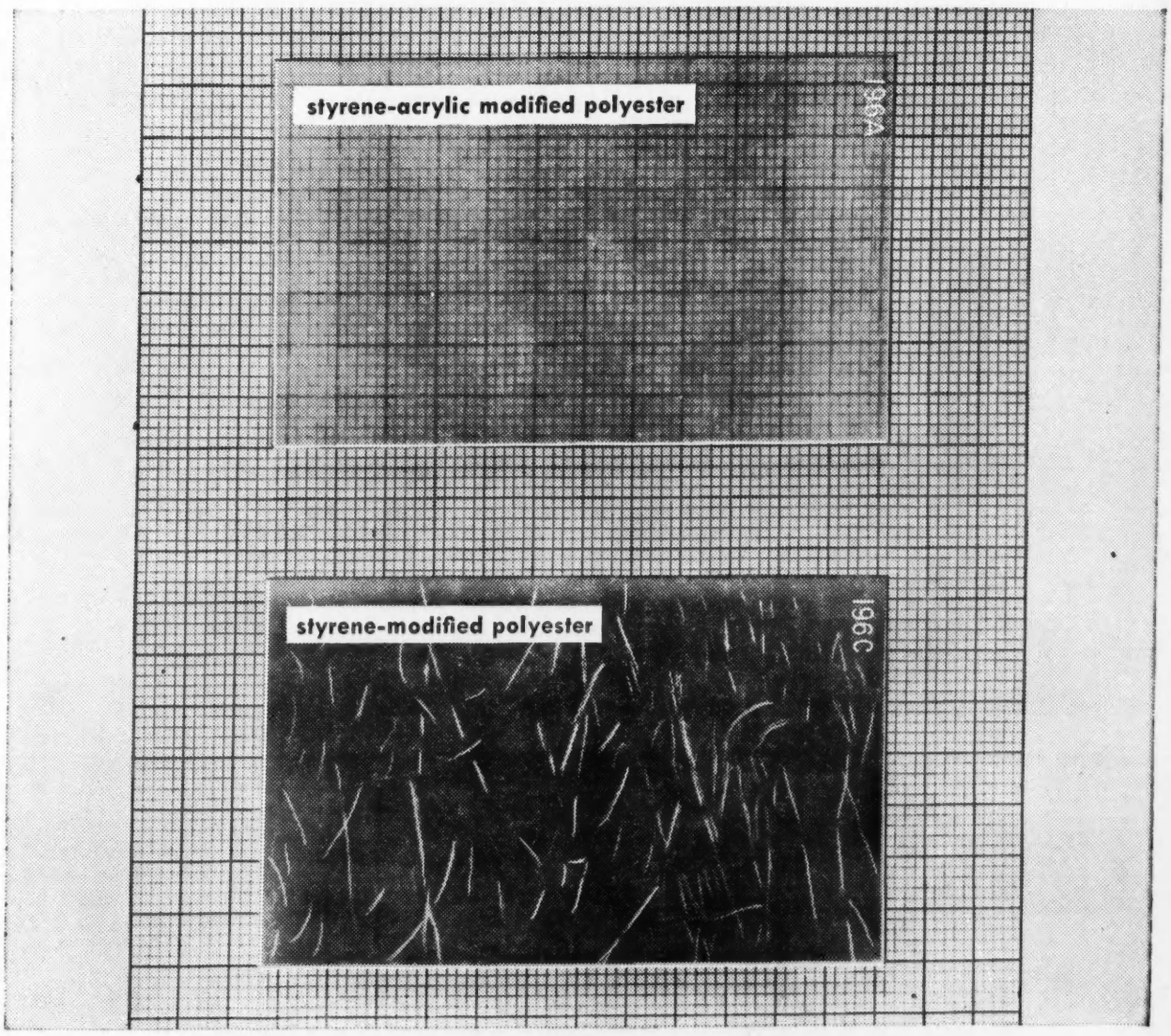
Chicago 32, Illinois

Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —
Sodium silicate, liq., 40° Be, 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.55 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —
47°Be, turbid, 1:2.9, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.00
tanks, works 100 lbs. 1.90 - —
52° Be, turbid, 1:2.4, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1:3.2, bgs., works ton.67.50 - —
Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .069 - —
Sodium silicofluoride in dms., 0.4c. per lb. higher.
Sodium stannate, dms., works, frt. Alld. E lb. .583 - .642
Sodium sulfa drugs (see Sulfa name).
Sodium sulfanilate, bbls., works lb. .22 - —
Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l. dlvd E. ton.52.00 - —
detergent, rayon grade, bgs., c.l., works ton.34.00 - —
bulk, c.l., works ton.31.00 - —
USP, cryst., fib. dms lb. .17½- .18
gran., fib. dms lb. .17½- .18
Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald. lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton.130.00 - —
Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —
Sodium sulfite, anhyd., bgs., c.l. works 100 lbs. 7.55 - —
bgs., l.c.l. same basis 100 lbs. 7.95 - —
Tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —
Sodium sulfocyanide, CP (see Sodium thiocyanate)
Sodium tetraborate (see Borax)
Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —
Sodium thiocyanate, CP, dms. lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —
Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Sodium thiosulfate, tech. (see Sodium hyposulfite).
Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton or less, works lb. .14¾- —
Sodium toluene sulfonate, dms., c.l. or t.l lb. .38 - —
dms., l.c.l. lb. .42 - —
Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld E. lb. .37½- —
100-lb. dms., l.c.l., frt. adjusted, E lb. .39½- —
50-lb. dms., c.l., frt. alld. E lb. .38 - —
50-lb. dms., l.c.l., frt. adjusted, E lb. .40 - —
10-lb. cns., c.l., frt. alld E lb. .44 - —
10-lb. cns., l.c.l., frt. adjusted, E lb. .46 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.
Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis 100 lbs. 8.56 - 9.06
Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs. 9.70 -10.10
dms., c.l., works 100 lbs. 9.45 - —
dms., l.c.l., works 100 lbs.10.20 -10.60
Sodium tungstate, tech., kgs., dlvd. E lb. 2.15 - —
Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —
Sodium-carboxymethyl cellulose (see CMC).
Sodium-cinchophen (see Cinchophen-sodium).
Sodium formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., same basis lb. .21½- —
Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —
Solvent naphtha, coaltar, high flash, tanks, frt. equald gal. .31 - .35
Solvent naphtha, petroleum, partial aromatic, 205°-282°F. b.r., 38°C. m.a.p., tanks, New Jersey gal. .24 - —
211°-277°F. b.r., 25.6°C. m.a.p., tanks, New York, New Jersey gal. .28 - —
212°-293°F. b.r., 38°C. m.a.p., tanks, Philadelphia gal. .24 - —
224°-280°F. b.r., 48°C. m.a.p., tanks, Houston gal. .215 - —
266°-374°F. b.r., 28°C. m.a.p., tanks, Philadelphia gal. .27 - —
282°-325°F. b.r., 41.6°C. m.a.p. tanks, Houston gal. .25 - —
284°-383°F. b.r., 35°C. m.a.p., tanks, Philadelphia gal. .27 - —
312°-365°F. b.r., 17.2°C. m.a.p. tanks, New Jersey gal. .345 - —
315°-350°F. b.r., 17.2°C. m.a.p., tanks, Texas City gal. .35 - —
322°-351°F. b.r., 15°C. m.a.p., tanks, Baytown, Texas gal. .33 - —
324°-349°F. b.r., 19°C. m.a.p., tanks, Houston gal. .33 - —
334°-392°F. b.r., 19°C. m.a.p., tanks, Philadelphia gal. .25 - —
352°-413°F. b.r., 36°C. m.a.p., tanks, Houston gal. .33 - —
358°-401°F. b.r., 24.4°C. m.a.p., tanks, New Jersey gal. .38 - —
365°-404°F. b.r., 19°C. m.a.p., tanks, New Jersey gal. .43 - —
367°-421°F. b.r., 20°C. m.a.p., tanks, Baytown, Texas gal. .33 - —
Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .32 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .34 - —
fib. dms., smaller lots, works lb. .37 - .39
Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .33 - —
Sorbitan tristearate, fib. dms., 10,000 to 20,000-lb. lots, works lb. .35 - —
fib. dms., smaller lots, works lb. .38 - .40
Sorbitol, cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb. .25 - .28
Powd., dms., c.l., works lb. .36 - —
dms., 1 to 5-ton lots, works. lb. .38 - .39
Sorbitol, soln., coml., aqueous, dms., c.l., works lb. .24¼- —
dms., ton lots, works lb. .25 - —
dms., smaller lots, works lb. .25¼- —
tanks, works lb. .23¼- —
NF, reg., 70% aqeous, dms., c.l., works lb. .16 - —
dms., ton lots, works lb. .16¾- —
dms., smaller lots works lb. .17 - —
tanks, works lb. .15 - —
Soybean meal, 44% bulk, Decatur ton.44.50 - —
Soybean oil, crude, tanks, Decatur lb. .11¾- —
Foots, soapstock, acid 95% tanks, N. Y. lb. .06⅝- —
Soybean oil, refd., alkali, dms. lb. .1628- .1650
tanks lb. .1428- —
clarified, dms. lb. .15⅞- .16
tanks lb. .1378- —
Salad, dms. lb. .16¾- .17
tanks lb. .14¾- —
Soybean oil acids, dbl. dist., dms. lb. .19 - .21½
tanks lb. .16½- —
Single-distilled, dms. lb. .17¾- .20¼
tanks lb. .15¼- —
Soybean pitch, dms., works lb. .05 - .05¼
Soybean protein, chemically isolated, bgs., c.l., works lb. .23 - —
Mechanically refd., bgs., l.c.l., works lb. .066 - —
Sparteine sulfate, cns. oz. .80 .90
Spearmint leaves, dom., bls. oz. .75 —
Spearmint oil, dms. lb. 3.75 - 4.50
Sperm oil, bleached, winter, 45°, dms lb. .1825- .1850
tanks lb. .1650- —
Nat., winter, 45°, dms. lb. .1725- .1750
tanks lb. .1550- —
Spermaceti wax, blocks, cs. lb. .31 - .34
Cakes, cs. lb. .32 - .34
Spruce extract, liq., reg. tanks, works lb. .01¾- —
Powd., super, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works lb. .05½- —
Spruce oil, cns., dms. lb. 2.10 - 3.50
Squill, white, bls. lb. .16 - .18
White, powd., bbls., bxs. lb. .17 - .20
St. John's bread, edible, bls. lb. .13 - .15
Stannic chloride, anhyd., dms., works lb. .743 - .753
Stannic oxide, dms., dlvd. E lb. .99½- 1.00½
Stannous chloride, anhyd, dms., works lb. .934 - 1.428
Hydrous, cryst., dms., works lb. .81 - .82
Stannous sulfate, dms., works lb. .992 - 1.012
Starch, corn, pearl, paper bgs., c.l. 100 lbs. 7.36 - —
paper bgs., l.c.l. 100 lbs. 7.51 - —
Starch, corn, powd., paper bgs., c.l. 100 lbs. 7.48 - —
paper bgs., l.c.l. 100 lbs. 7.63 - —
Prices for corn starch in cotton bags, 15c. per 100 lbs. higher.
Starch, potato, dom., Idaho, bgs., c.l., works lb. .06½- —
Dom., Maine, bgs., c.l., works lb. .06¼- —
bgs., ex whse, New York lb. .08¼- .09¼
Starch, rice, bgs., ex whse lb. .14½- .16
Starch, wheat, bgs. lb. .08½- .09
Star root (see Helonias root).
Stargrass root (see Aletris root).
Stavesacre seed, bgs. lb. .60 - .61
Stearic acid, dbl. pressed, bgs. lb. .16½- .19
Single-pressed, bgs. lb. .16 - .18¼
Triple pressed, bgs. lb. .18¾- .21¼
Stearine, oleo (see Oleostearine).
Stoddard solvent, petroleum tanks, east coast, New Jersey, New York gal. .18 - —
tanks, western Pennsylvania, gal. .16 —
tanks, group 3 gal. .13375- —
tankwagon, Boston gal. .20 —
Chicago gal. .299 —
Cleveland gal. .23½- —
Los Angeles, ex tax gal. .199 - —
Newark gal. .19 - —
New York gal. .19 - —
Philadelphia gal. .19½- —
Pittsburgh gal. .19 - —
Stramonium leaves, bgs. lb. .18 .20
Streptomycin hydrochloride, bulk, gram .0850- 0875
Streptomycin sulfate, bulk gram .0850- 0875
Strontium bromide, NF, cryst., 150-lb. fib. dms lb. .84 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works. lb. .35 - —
dms., 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —
Strontium chromate, bbls., works. lb. 46 - —
Strontium iodide, jars, 25-lb. lots. lb. 3.57 - —
Strontium nitrate, bgs. c.l. works. 100 lbs.11.00 - —
bgs., l.c.l., works 100 lbs.12.00 - —
Strontium salicylate, NF, dms lb 1.88 - —



POLYMERS KNOW HOW TO CONCEAL THEIR AGE

... with Rohm & Haas Acrylic Monomers

Looking at these glass fibre reinforced panels, you'd hardly suspect that both were exposed to the same Florida weather for 12 months. The one, made with a styrene-modified polyester resin, suffered surface erosion, discoloration, and fibre "splintering." But the other, made with a styrene-acrylic modified polyester resin, retained its color and surface gloss without fibre evidence. This is typical of the built-in benefits you get through copolymerization of Rohm & Haas acrylic monomers with many other monomers. The primary chemical bonds which are formed mean that the acrylates cannot migrate, volatilize, or be extracted by even the strongest solvents. As a result, copolymers remain tough and flexible longer . . . resist attack by heat and ultraviolet light. To see how acrylic monomers can improve your product, write for our detailed booklet.

ROHM & HAAS ACRYLIC MONOMERS

Methyl acrylate
Ethyl acrylate
Butyl acrylate
2-Ethylhexyl acrylate
Methyl methacrylate
Ethyl methacrylate
Butyl methacrylate
Hexyl methacrylate
Decyl-octyl methacrylate
Lauryl methacrylate
Stearyl methacrylate
Glacial acrylic acid
Glacial methacrylic acid

Chemicals for Industry

ROHM & HAAS COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Representatives in principal foreign countries

Strontium sulfate, air floated, 90%, 325 mesh, bgs., works.ton.56.70 -66.15
Strophanthin G (see Ouabain, USP).
Strophanthin K, bots ..... oz.25.00 -25.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75
Styrax, USP, cs. ..... lb. .85 - .95
Styrene monomer, polymer grade, 99.6%. dms. c.l., frt. alld. lb. .18½- —
dms., l.c.l., same basis ..... lb. .20½- —
tanks, same basis ..... lb. .16 - —
Syn. rubber grade, 99%, tanks, bulk, contract lb. .1247- —
c.l., t.l., same basis ..... lb. .15 - —
l.c.l., same basis ..... lb. .17 - —
Above contract prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.
Styrolyl acetate, bots ..... lb. 1.25 - 1.45
Succinic acid, purif., cryst., bbls., works lb. .62 - .75
Sucrose, refd., white, bgs., refy. E. lb. .0885- —
Sucrose octa-acetate, denaturing grade, 100-200-lbs., bgs., l.c.l., works lb. .84 - —
Sugar (see Sucrose).
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works..... lb. .65 - .75
80-lb. ctns., spot ..... lb. .67¼ - 72¼
Sulfabenzamide, dms..... kilo. 8.80 - 9.90
Sulfabenzamide-sodium, dms... kilo. 9.00 -10.10
Sulfacetamide, USP, fib. dms kilo. 7.70 - 8.80
Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 - 9.25
Sulfadiazine, USP, microcrystals, dms kilo.23.35 -24.45
USP, powd., dms ..... kilo.22.60 -23.70
Sulfadiazine-sodium, USP, dms.kilo.24.80 -25.90
Sulfaguanidine, NF X, dms kilo. 5.50 - 6.60
Sulfamerazine, USP, microcrystals, dms kilo.23.50 -24.60
Sulfamerazine-sodium, USP, powd., dms kilo.24.80 -25.90
Sulfamethazine, microcrystals, USP XV, dms kilo.19.65 -20.75
Powd., dms ..... kilo.18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs.16.00 - —
dms., l.c.l., l.t.l., works 100 lbs.17.50 -18.50
Sulfanilamide, NF X, 30-80 mesh, dms kilo. 3.03 - 3.50
NF X, microcrystals, dms kilo. 3.79 - 4.20
powd., dms ..... kilo. 2.85 - 3.30
Sulfanilamide quinoxaline, veterinary, dms kilo.14.12 -14.85
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld ..... lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo.15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo. 6.25 - 6.60
Sulfathiazole, NF X, powd., dms. kilo. 5.50 - 5.85
microcrystals, dms. ..... kilo. 6.25 - 6.60
Sulfathiazole-sodium, NF X, dms.kilo. 6.05 - 6.40
Sulfur, coml., flour, bgs., mines. 100 lbs. 2.45 - —
bbls., mines ..... 100 lbs. 3.30 - —
Coml., lump, bgs., mines... 100 lbs. 2.35 - —
bbls., mines ..... 100 lbs. 2.90 - —
Crude, dom., bright, bulk, f.o.b. cars, mines long-ton.23.50 - —
Crude, dom., bright, bulk, export, f.o.b. vessels Gulf ports. long-ton.25.00 - —
Sulfur, crude, bulk, dom., bright, and Canada, f.o.b. vessels Gulf ports long-ton.25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower.
Sulfur, crude, bulk, imp., Mexican, filtered, f.o.b. vessel, Coatzacoalcos long-ton.23.00 - —
Mexican dark sulfur price is $1 per long ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.15 - —
bbls., mines ..... 100 lbs. 6.50 - —
Refd., flour, light, bgs., mines. 100 lbs. 4.75 - —
bbls., mines ..... 100 lbs. 5.75 - —
lump, bgs., mines ..... 100 lbs. 4.45 - —
rolls, bgs., mines ..... 100 lbs. 5.00 - —
bbls., mines ..... 100 lbs. 5.75 - —
Sulfur, refd., salt block, bgs., mines. 100 lbs. 4.65 - —
virgin block, bbls., mines. 100 lbs. 4.70 - —
Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs. 2.55 - —
bbls., mines ..... 100 lbs. 3.80 - —
Sulfur, rubbermakers, 98-100%, passing through 325 mesh, mines. 100 lbs. 2.65 - —
bbls., mines ..... 100 lbs. 3.90 - —
Sulfur, rubbermakers, refd., bgs., mines 100 lbs. 4.40 - —
bbls., mines ..... 100 lbs. 5.55 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.85 - —
bbls., mines ..... 100 lbs. 4.10 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .04½- —
ret. dms., l.c.l., same basis... lb. .05¼- —
tanks, same basis ..... lb. .04 - —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works .... lb. .0535- —
tanks, works ..... lb. .045 - —
Refrigeration, 150-lb. cyls., dlvd. lb. .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .04½- —
Sulfur monochloride, 55-gal. non-ret. dms., l.c.l., same basis. lb. .05¼- —
tanks, same basis ..... lb. .04 - —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works .... 100 lbs. 2.45 - —
tanks, works ..... ton.18.60 - —
Sulfuric acid, 66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works .... 100 lbs. 2.55 - 3.35
tanks, works ..... ton.22.35 - —
98%, tanks, works ..... ton.23.50 - —
99-100%, tanks works ..... ton.23.95 - —
Sulfuric acid, CP, NF, consumers cbys, c.l. frt. equald lb. .12¾- —
consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots. extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots. extra, cs., l.c.l., same basis lb. .18¼- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton.25.00 - —
40%, tanks, works ..... ton.29.00 - —
65%, tanks, works ..... ton.39.50 - —
Sumac leaves, 28% tannin, bgs., ex dock ton.135.00 Nom.
28% tannin, grd., bgs., ex dock ton.130.00 Nom.
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk., c.l., Baltimore unit-ton. .90 - .93
bulk, c.l. Carteret, N. J. unit-ton. .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l., East Tampa, Fla. unit-ton. .98 - —
Sweet birch oil, USP, northern, cns lb. 4.25 - 9.50
USP, southern, cns. ..... lb. 2.30 - 2.75

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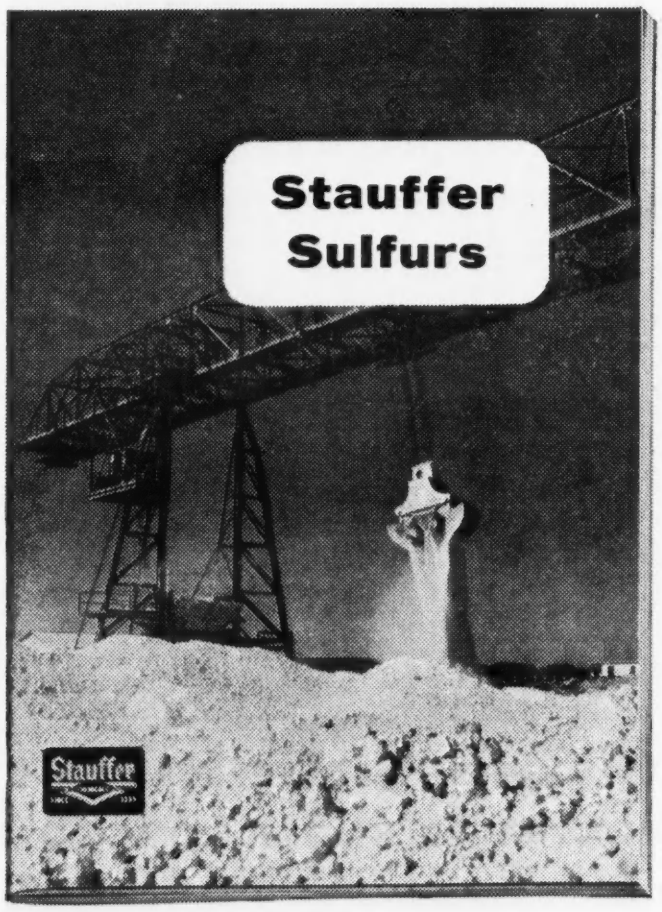
2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis .... lb. 1.25 - —
2,4,5-T Isopropyl ester, dms., c.l., works, frt. equald .... lb. 1.24 - —
dms., l.c.l., works .... lb. 1.29 - —
Talc, dom., fibrous, New York, grd., bgs., c.l., works ton.28.00 - —
bgs., l.c.l., works ..... ton.31.00 -36.00
Dom., fibrous, New York, 99.5%, 325 mesh, bgs. c.l., works. ton.31.00 - —
bgs., l.c.l., works ton.34.00 - —
99.95% micronized, bgs., works. ton.38.00 - —
Dom., ord., Calif., grad., bgs., c.l., works ton.33.00 -39.50
ord., Vermont, off-color, grd., bgs., c.l., works .... ton.19.40 - —
bgs., l.c.l., works .... ton.37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
Tall oil, crude, dms., c.l., works lb. .04½- —
tanks, works ..... lb. .02½- .03
Dist., dms., c.l., works..... lb. .07¾- —
dms., l.c.l., works ..... lb. .08 - .08¼
tanks, works ..... lb. .06½- —
Refd., dms., c.l., works..... lb. .06¾- —
dms., l.c.l., works ..... lb. .07 - .07¼
tanks, works ..... lb. .05½- .06
Tall oil acids, dms., c.l., works lb. .10½- .12
dms., l.c.l. ..... lb. .11 - .12¼
tanks, works ..... lb. .08½- .10
Tall pitch, dms., c.l., works .. ton.50.00 -70.00
tanks, works ..... ton 30.00 -40.00
Tallow, edible, tanks, dlvd .... lb. .12 - .12¼
inedible, fancy, bleachable, tanks, dlvd lb. .09 - .09⅛
fancy, guaranteed, dms., f.a.s. lb. .10¼- —
No. 1, tanks, dlvd..... lb. .08½- .08⅝
prime, tanks, dlvd. ..... lb. .08¾- .08⅞
special, tanks, dlvd. ..... lb. .08⅞- .08¾
sulfonated, 25%, bbls., l.c.l. lb. .08⅝- .08⅞
50%, bbls., l.c.l. ..... lb. .09⅝- .10⅛
Tallow acids, dist., dms. ..... lb. .17 - .19⅛
tanks ..... lb. .14½- —
Hydrogenated, dms. ..... lb. .15½- .18
Tallow oil, acidless, dms., c.l... lb. .14½- —
dms., l.c.l. ..... lb. .15½- .17
Tangerine oil, Floridian, dms.... lb. 2.00 - 2.80
Tankage, animal, feeding, 9-11% ammonia, bulk unit-ton. 5.00 - —
Animal, feeding, 9-11% ammonia, Chicago, bulk unit-ton. 6.25 - —
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots ..... lb. 2.06 - 2.10
powd., bbls., 1,000-lb. lots..... lb. 1.95 - —
bbls., smaller lots ..... lb. 1.96 - 2.01
Tech., dms. ..... lb. 1.05 - —
Tansy oil, dms. ..... lb. 7.50 - 9.50
Tapioca flour, Brazilian, bgs., ex whse lb. .12 - .13⅛
Siamese, first quality, same basis. lb. .07 - .07½
Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis..... gal. .55½- —
tanks, same basis ..... gal. .43½- —
25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis..... gal. .62 - —
tanks, same basis ..... gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis..... gal. .77 - —
tanks, same basis ..... gal. .65 - —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, dom., USP, 230 or 250-lb. dms., c.l lb. .49 - —
230 or 250-lb. dms., 10,000-lb. lots, 1 shipt lb. .49½- —
230 or 250 lb. dms., smaller lots lb. .50 - —
100-lb. dms. ..... lb. .51 - —
Imp., bgs. ..... lb. .40 - .44
Terpine glycol ether, dms., c.l., works lb. .23½- —
dms., l.c.l., works..... lb. .25½- —
tanks, works ..... lb. .22 - —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 - —
Terpineol, dms., l.c.l., dlvd. E lb. .23¾- —
Extra, dms. ..... lb. .41 - .60
Prime, dms. ..... lb. .30 - .45
Terpinyl acetate, extra, cns., dms.lb. .60 - .75
Prime, dms. ..... lb. .55 - .70
Terpinyl propionate, dms. ..... lb. 1.75 - 3.00
Terra alba (see Gypsum).
Testosterone, USP, 100-gm. lots, bots gram. .70 - —
Testosterone proprionate, USP, 100-gram lots, gram lots, bots. gram. .68 - —
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).

Sulfur



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THE NEWEST BOOK
ON THE OLDEST CHEMICAL

Stauffer Chemical Company — largest user and largest marketer of processed Sulfurs — has prepared a new, authoritative treatise and catalog on Sulfur. The history, preparation and uses, with a detailed description of Stauffer Sulfurs are included in a 52-page brochure with many illustrations and useful tables.

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Stauffer CHEMICALS SINCE 1885

STAUFFER CHEMICAL COMPANY
380 Madison Avenue, New York 17, N. Y.
Prudential Plaza, Chicago 1, Ill.
636 California Street, San Francisco 8, Calif.

Tetrachloroethylene USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .61½- —
dms., l.c.l., dlvd. E lb. .62½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —
Tetraethylenepentamine dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .54½- —
tanks, dlvd. E lb. .51 - —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or t.t.l., works lb. .37 - —
tanks, works lb. .35 - —
Tetrahydrofurfuryl alcohol, dms., c.l. t.l., Memphis, Tenn. lb. .34½- —
dms., l.c.l. t.t.l. Memphis, Tenn. lb. .35½- —
dms., c.l., t.l., Newark, N. J lb. .36½- —
dms., l.c.l., t.t.l. Newark, N. J lb. .37½- —
tanks, dlvd. E. of Denver lb. .34 - —
tanks, dlvd W of Denver lb. .35 - —
Tetrapotassium phosphate (see Potassium phosphate).
Thallium metal dlvd lb 12.50 -15.00
Thallium sulfate, 99% oots. dlvd lb 8.00 -13.00
Theobromine, NF, fib dms lb 4.50 - —
Theobromine and sodium acetate, USP, fib dms lb. 4.73 - —
Theobromine sodio-salicylate, NF, fib dms lb. 3.90 - —
Theophylline, anhyd., or USP, 100-lb. dms lb 3.65 - —
Thiamine hydrochloride, USP, reg., fib dms kilo.40.00 - —
USP ampule grade fib. dms.kilo.42.00 - —
Thiamine mononitrate USP, fib. dms kilo.40.00 - —
Thiocarbanilide, dms., ton lots lb. .72 - —
dms., less ton lots lb. .74 - —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb 5.10 - —
Tungstated, PTMA, kgs., works. lb 6.40 - —
Thioglycolic acid refd. cbys., 100% basis lb 1.35 - 1.55
Thiosalicylic acid, purif., dms., 1,000-lb lots, works lb 4.00 - —
Thiourea tech. bgs. t.l. frt. alld. lb .33 - —
bgs., l.c.l. frt alld lb. .35 - —
Thorium nitrate, purif., fib. dms., 100-lb lots or more, works lb 3.50 - —
dl-Threonine bots. 1-kilo lots.kilo.450.00 -500.00
Thyme oil, NF, red, cns., dms lb. 2.10 - —
white, cns lb. 2.20 - —
Tech, white cns lb. .40 - 1.85
Thymol fib dms lb. 2.60 - 3.00
Thymol iodide NF, dms. lb. 7.30 - —
Timbo root (see Cube root).
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. .89½- —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride anhyd (see Stannic chloride, anhyd.).
Titanium pigment calcium-rutile base reg. bgs., c.l., dlvd. lb. .09¼- —
bgs., l.c.l., works lb. .09¾- —
Calcium-rutile base high-tinting, dms., c.l lb. .09 - —
dms. l.c.l lb. .09½- —
Titanium dioxide, anatase, chalk-resistant, bgs., c.l., dlvd.lb. .25½- —
bgs., l.c.l. dlvd lb. .26½- —
Anatase, ceramic, bgs., c.l., dlvd. lb. .23½- —
bgs., l.c.l., dlvd lb. .24½- —
reg., bgs., c.l., dlvd lb. .23½- —
bgs., l.c.l., dlvd lb. .24½- —
Titanium dioxide, anatase, granular, nat., bgs., c.l., f.o.b. Jacksonville, Fla ton.180.00 - —
5 ton lots, Niagara Falls, N. Y. ton.205.00 - —
bgs. ton lots, same basis, ton.215.00 - —
Rutile, non-chalking bgs. c.l., dlvd. E lb. .27½- —
Tungstated, PTMA, bbls. lb. 5.55 - —
bgs. l.c.l. dlvd. E lb. .28½- —
Milled metallurgical titanium dioxide $7.50 per ton higher.
Titanium hydride powd., dms., works lb. 8.10 - 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .28 - —
dms., l.c.l. works lb. .27½- .29
tanks works lb. .20 - —
Tobias acid, bbls., frt. alld lb. 81 - —
d-a-Tocopherols, mixed, NF, conc., pure basis, bots kilo.91.00 - —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.166.00 - —
d-a-Tocopheryl acid succinate, cryst. bots kilo.148.00 - —
dl-a-Tocopherol, bots kilo.134.20 - —
dl-a-Tocopheryl acetate, bots kilo.122.00 —
25% dry, powd., bots kilo.30.50 -32.00
o-Tolidine base, dry, kgs., 100% basis lb 1.40 - —
Paste, kgs., 100% basis lb 1.35 - —

Toluol

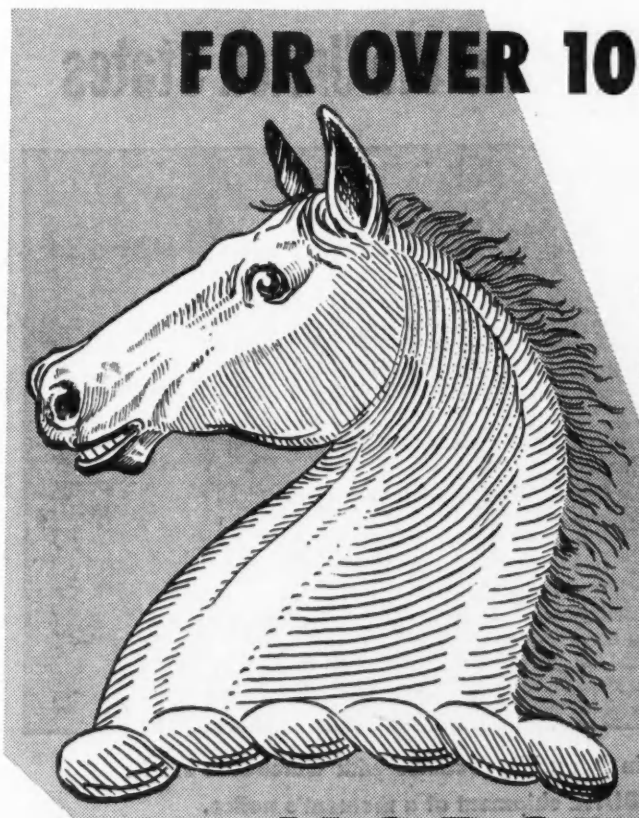
Toluol quotations, both coaltar and petroleum, may now be found under Toluene.

o-Tolidine hydrochloride, paste, kgs., 100% basis lb 1.35 - —
Tolu balsam, cns. lb. 4.25 - 4.75
Toluene, coaltar, industr. or nitration, tanks, works:—
Bethlehem, Pa. gal. .29½- —
Birmingham, dist. gal. .29½- —
Chicago, dist. gal. .29½- —
Cleveland, dist. gal. .29½- —
Geneva, Utah gal. .26 - —
Johnstown, Pa. gal. .29½- —
Lackawanna, N. Y. gal. .29½- —
Lone Star, Tex. gal. .29¼- —
Lorain, Ohio gal. .29½- —
Middletown, Ohio gal. .31 - —
Minnequa, Colo. gal. .32 - —
Philadelphia, dist. gal. .29½- —
Pittsburgh, dist. gal. .29½- —
Sparrow's Point, Md. gal. .29½- —
Terre Haute, Ind. gal. .29½- —
Youngstown, Ohio gal. .29½- —
Toluene, petroleum, industr., 2° tanks, works:—
Albany, N. Y. gal. .32 - —
Bayonne, N. J. gal. .31 - —
Baytown, Tex. gal. .29¼- —
Chicago, Ill. gal. .29½- —
Detroit, Mich. gal. .31 - —
Houston, Tex. gal. .29¼- —
Philadelphia, Pa. gal .31 - —
Providence, R. I. gal. .32 - —
Wood River, Ill. gal. .32 - —

p-Toluenesulfonamide, powd., dms., works lb. .70 - —
p-Toluenesulfonic acid, dms., c.l., t.l., works lb. .17 - —
dms., l.c.l., works lb. .18 - —
p-Toluenesulfonic acid, monohydrate, dms., c.l., or t.l lb. .90 - —
dms., 125 lbs. to t.l lb. 1.00 - —
m-Toluidine, dms., c.l., works, frt. alld lb. .79 - —
dms., l.c.l., same basis lb. .80 - —
tanks, same basis lb. .78 - —
o-Toluidine, dms., c.l., works, frt. alld lb. .23 - —
dms., l.c.l., same basis lb. .24 - —
tanks, same basis lb. .22 - —
p-Toluidine, flake, dms., frt. alld lb. .54 - —
Solid, dms., frt. alld lb. .60 - .61
o-Toluidine-m-sulfonic acid, frt. alld. lb. .70 - —
p-Toluidine-m-sulfonic acid, bbls., works lb. .92 - 1.04
Toluidine red toner, deep shades, kgs., works lb 1.70 - —
Light shades, kgs., works lb 1.70 - —
2,4-Tolylenediamine cryst., fib. dms., c.l., frt. alld lb .97 - —
fib. dms., t.c.l., frt. alld lb 1.00 - —
Powd., fib. dms., same basis lb 1.00 —
Tonka beans, Angostura, cks lb No prices
Brazilian, Surinam, cs lb 1.35 —
Totaquine 100-oz. tots, cns oz. .42 - —
Toxaphene, dms., c.l. t.l., works lb. .22 - —
dms., l.c.l., t.t.l. works lb. .28 - —
Tragacanth gum, No. 1, ribbons, cs lb. 4.25 - 4.50
No. 2, cs. lb. 3.40 - —
No. 3, cs. lb. 3.00 - 3.10
USP, powd., bbls. lb. 1.25 1.38

Triacetin, dms., c.l., dlvd. E. of Rockies lb. .39 - —
dms., l.c.l., same basis lb. .40 - —
tanks, same basis lb. .37 - —
Tributyl citrate, tech., non-ret. dms., c.l. frt alld E of Denver lb. .42½ —
non-ret. dms. l.c.l., frt alld E. of Denver lb. .43½ —
tanks, frt alld E of Denver lb. .40 - —
Tributyl phosphate dms. c.l., works lb. .52½- —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .50 — —
Tributylamine, dms., c.l., works lb. .67½- —
dms., l.c.l., same basis lb. .68½- —
tanks, same basis lb. .65 - —
Trichloroacetic acid, bots lb 2.00 2.50
Trichlorobenzene, dms c.l., frt alld. E lb. .15 - —
dms., l.c.l., frt. alld E lb. .16 - —
tanks, frt. alld E lb. .13¼- —
Trichlorobenzene prices in the West 1¾c higher.
1,1,1-Trichloroethane, dms., c.l., dlvd lb. .14¾- —
dms., l.c.l., dlvd lb. .17¾- —
tanks, dlvd lb. .13¾- —
1,1,2-Trichloroethane, dms., c.l., works lb. .13½- —
dms., l.c.l., dlvd E lb. .14¼- —
tanks, works lb. .11½- —
Trichloroethylene, dms., c.l., or t.l., works, frt. equald lb. .13 - —
dms., l.c.l., frt. alld lb. .15 - .16¾
tanks, works, frt. equald lb. .12 - —

Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate 65% soln. ret. cbys works frt adjusted lb 40 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd lb 35 - —
dms. t.c.l. dlvd lb 36 —
tanks, dlvd lb 32½- —
Petroleum, dms., c.l., dl d lb .41½ —
dms., l.c.l., dlvd lb 35½ —
tanks, dlvd lb 32½ —
Tridecyl alcohol, mixed isomers, dms., dlvd lb 26½ —
dms., l.c.l., dlvd lb 27½ —
tanks, dlvd. lb 24 —
Triethanolamine dms., c.l. dlvd. E lb. .24½- —
dms., l.c.l., same basis lb. 25½- —
tanks, same basis lb. 22 - —
Triethylamine, dms. c.l., works, dlvd. E lb. .50 - —
l.c.l., same basis lb. 51 - —
tanks, same basis lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms. c.l., frt. alld E. of Denver lb. .45¾- —
non-ret. dms. l.c.l. frt alld. E. of Denver lb. .46¾- —
tanks, frt. alld. E of Denver lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd lb. .40¼- —
dms., l.c.l., dlvd. lb. .41½- —
tanks, dlvd. lb. .38 - —



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YOUR GUARANTEE OF QUALITY AND UNIFORMITY

HORSE HEAD ZINC OXIDES

GIVE YOUR OUTSIDE HOUSE PAINTS

- DURABILITY—through chemical and mechanical reinforcement and through its 100% opacity to ultraviolet rays from the sun.
- SELF CLEANSING CHARACTERISTICS } through its unique detergent action.
- COLOR RETENTION
- CONTROLLED CHALKING AND EROSION—through soap formation.

We will be glad to assist you in determining which HORSE HEAD ZINC OXIDE is best for you.

THE NEW JERSEY ZINC COMPANY
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BOSTON CHICAGO CLEVELAND OAKLAND LOS ANGELES
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VAN WATERS AND ROGERS
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ST. LAWRENCE CHEMICAL COMPANY, LTD.
TORONTO, ONT. MONTREAL, QUE.
HORSE HEAD PRODUCTS

Triethylene Glycol—Wattle Bark

Triethylene glycol, dms., c.l., dlvd. E lb. .21 • —
dms., l.c.l., dlvd. E..... lb. .22 • —
tanks, same basis ..... lb. .18½- —
Triethylenetetramine, dms., c.l., dlvd. E lb. .51½- —
dms., l.c.l., dlvd E. ..... lb. .52½- —
tanks, dlvd E. ..... lb. .49 • —
Tri-isopropanolamine, dms. c.l., dlvd. E lb. .24½- —
dms., l.c.l., dlvd. E..... lb. .25½- —
tanks, dlvd E ..... lb. .22 • —
Trimethylamine, 25-40% soln. dms., c.l., works, frt. equald., 100% basis lb. .35 • —
Trimethylamine, 25-40% soln. dms., l.c.l., works, frt. equald, 100% basis lb. .35½- —
tanks, works, frt. equald, 100% basis lb. .26 • —
Trioxane pure, dms. c.l., t.l., works, lb. .50 • —
dms. l.c.l., works ..... lb. .51½- —
Tripentaerythritol, bgs., l.c.l., dlvd. E.. lb. .35 • —
Triphenyl phosphate, bbls., c.l., frt. equald lb. .40 • —
bbls. l.c.l., frt. equald ..... lb. .41 • —
Triphenylguanidine, bbls., works lb. .90 • —
tanks, same basis ..... lb. .18½- —
Tripropylene glycol, dms., c.l., frt. alld. E lb. .20½- —
dms. l.c.l. frt. alld. E ..... lb. .21½- —

Tripropylene glycol prices 1c. per lb. higher in West.

Trisodium phosphate (see Sodium phosphate tribasic).
dl-Tryptophane, fib. ctns., works. lb. 75.00 • —
Tung oil, dms., c.l., New York....lb. .25¼- —
dms., l.c.l., same basis.....lb. .25½- .25¾
tanks, New York .....lb. .23¾- —
tanks, domestic, mills .....lb. .22½- Nom.
Tungsten metal powd. 2-5 microns, dms., works lb. 4.10 • 4.20
Tungstic acid, tech., dms., 1,000-lb. lots, works lb. 3.00 • —
dms., smaller lots, works .. lb. 3.15 • 3.50
Tuscan red, bbls. frt. equald .. lb. .26 • .32
Turkey red, bbls., works ..... lb. .62 • —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns. dms .. lb. .28 • .45
Tyrothricin, USP, bots.....gram. .55 • .58

U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. N. of Tenn. and N. C., E. of Miss. R., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. .35 • .39½
Ultramarine blue, jobbing types, bbls., same basis..lb. .19 • —
Regular types, dry bbls., same basis lb. .22½- .38
Ultramarine blue dlvd. prices ½c. higher Ala., Fla., Ga., La., (Shreveport 1¼c), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.); Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph, 1.6c. higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt equald. with Chicago.
Umber pigment, burnt, American, bgs., c.l. works lb. .07 • .07¾
bgs., l.c.l., works .... lb. .07¼- .08
Umber pigments, burnt, Turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y..lb. .07¾- —
Raw, American, bgs. works . lb. .07½- .08¼
Turkey-type, bgs. works... lb. .06¾- .07
Undecylenic acid, dms. .....lb. 1.45 • —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., dlvd. E ton. 125.00 • —
bgs., l.c.l., dlvd E., ex whse. ton. 145.00 • —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton. 110.00 • —
Urea-ammonia liquor A and B grades, N basis, tanks, Belle, W. Va ton. 126.00 • —
C grade, tanks, same basis ton. 124.50 • —
37 grade, tanks, same basis ton. 153.00 • —
Urethane USP, dms., t.l., f.o.b., works lb. .65 • —
dms., l.t.l., same basis.....lb. .70 • —
Uva-ursi leaves, bls.....lb. .17 • .19

V

Valerian root, Belgian, bgs.....lb. .35 • —
Indian, bgs .....lb. .29 • —
Valonia beards, 40-42% tannin, bgs., ex dock ton. 95.00 Nom.
Victoria blue toner, bbls., prices ½c. higher Ala., Fla., Ga., La. (Shreveport 1¼c.), Miss., N. C., S. C., Tenn., Tex. (El Paso 2c.), Cedar Rapids, Des Moines, Kansas City, Lincoln, Omaha, St. Joseph 1.6c. higher; Pacific coast, Denver, Pueblo, Salt Lake City, Wichita, frt. equalized with Chicago.
Valonia cups, 28-30% tannin, bgs., ex dock..ton. 73.00 • —
Valonia extract, powd., 63% tannin, bgs., ex dock lb. .11 • —
Vanadium pentoxide, tech., dms., works lb. 1.28 • 1.33
Vandyke brown, bbls., works... lb. .09½- .12
Vanilla beans, Bourbon, tins.... lb. 8.35 • 8.75
Mexican, cuts, tins..... lb. 7.75 • —
whole, tins ..... lb. 8.25 • 8.50
Tahiti, cs. ..... lb. 7.00 • —
Vanillin, ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 2.85 • 3.10
100-lb fib dms., smaller lots. lb. 2.95 • 3.10
Venetian red, jobbing, bgs., works. lb. .0475- —
20%, bgs., works.....lb. .0525- —
25%, bgs., works.....lb. .0575- —
30%, bgs., works.....lb. .06 - —
35%, bgs., works.....lb. .0625- —
40%, bgs., works.....lb 0675- —
Vetiver oil, Bourbon, cns.....lb. 13.00 -13.75
Haitian, cs. .....lb. 10.00 -10.50
Java, cns .....lb. 11.75 -12.25
Victoria blue toner, molybdated, PMA, 250-lb. bbls., dlvd. N. of Tenn. and N. C., E. of Miss. R., including St. Paul, Minneapolis, Davenport, Rock Island, St. Louis lb. 4.50 • —
Vinyl acetate monomer, Zone 1, 55-gal. dms., c.l., dlvd lb. .20 • —
55-gal. dms., l.c.l., dlvd .... lb. .21 • —
tanks, dlvd ..... lb. .17½- —
tanktrucks less than 4,000 gal., dlvd lb. .18 • —
Zone 2, 55-gal. dms., c.l., dlvd lb. .21 • —
55-gal. dms., l.c.l., dlvd .... lb. .24 • —
tanks, dlvd ..... lb. .18½- —
tanktrucks less than 4,000 gals., dlvd lb. .19 • —
Zone 1 is all continental U. S. except Zone 2. Zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .35 • —
Vinyl chloride monomer, tanks, works lb. .11 • .13
Vinyl ether, tech., dms., c.l., works. lb. .26 • —
dms., l.c.l., works ..... lb. .28 • —
tanks, works..... lb. .25 • —
USP, anesthesia, bots., 50cc. hospitals bot. 1.12 • —
USP, anesthesia, bots., 75cc. hospitals bot. 1.56 • —
Vinyl ethyl ether, tech., dms., works lb. .30 • —
Vinyl isobutyl ether, tech., dms., l.c.l., works lb. .35 • —
Vinyl methyl ether, cyls., works lb. .30 • —
Cylinders are sold outright, or if shipped against deposit, a free period of sixty days is allowed; and if empties are returned prepaid and in good condition within that period full refund is made.
Vinyl propionate monomer dms., c.l., dlvd lb. .49 • —
dms., l.c.l., same basis ..... lb. .50 • —
tanks, same basis..... lb. .47 • —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.34 • —
1 to 9 dms., works..... lb. 1.48 • —
tanks, works ..... lb. 1.31 • —
Vinyltoluene, dms., c.l., frt. alld lb. .18½- —
dms., l.c.l., frt. alld ..... lb. .19½- —
tanks, frt. alld ..... lb. .16 • —
Virginia type red, bbls., works lb. 1.40 • —
Viosteral in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Vitamin A acetate, syn., cryst., beads, 500,000 A units per gram..gram. .07¼- —
dry, 500,000 units per gram, kilo lots kilo. 67.50 • —
dry, 325,000 units per gram, same basis kilo. 43.88 • —
dry, 250,000 units per gram, same basis..kilo. 33.75 • —
Dry vitamin A acetate in less than kilo lots, $2.50 per kilo higher in all potencies.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .10 • —
Vitamin A, palmitate, liq. 1,000,000-1,500,000 A units per gram 1,000,000 units. .10 • —
Liq. in oil, 1,000,000 A units per gram 1,000,000 units. .10 • —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
gram. 215.00 • —
Oral grade solids, in containers of 1 and 10 grams of B_{12} activity. gram. 175.00 • —
0.1 percent triturations of cryst. B_{12} with dicalcium phosphate or mannitol, 1-10..kilo. 247.00 • —
Vitamin C (see Ascorbic acid).
Vitamin B_{12}, cryst., 1-10 gram vials.
Vitamin D (see Codliver and Fish-liver oils, Calciferol and Viosterol).
Vitamin D_2, dry, 850,000 units per gram, kilo lots kilo. 42.50 • —
850,000 units per gram, less than kilo lots kilo. 45.00 • —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin G (see Riboflavin).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Vitamin K_1, 25 gram bots gram. 4.50 • —
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root, bark, bls.....lb. 2.25 • —
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 • —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 • —
cns., 5-24-lb. lots, New York or Chicago lb. 2.15 • —
Watchung-type reds, bbls .. .. lb. 1.95 • —
Wattle bark, fair average, African, bls, ex dock..ton. 82.00 • —
Merchantable, bls., ex dock..ton. 77.00 • —
Wattle extract, liq., 35% tannin, bbls. lb. .08¼- .08½
Solid, East Africa, 60% tannin, bgs., ex dock..lb. .08275- —
Solid, South Africa, 60% tannin, bgs., ex dock..lb. .0840- —

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Waxes

Wax quotations, formerly grouped under one heading, are now listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal dms	gal.	11.25	—
Wheat starch (see Starch, wheat).			
White lead (see Lead white).			
White mineral oil (see Mineral oil, white).			
White pine bark, rossed, bls	lb.	.18	.19
White precipitate, USP powd. dms.,	lb.	6.55	—
Whiting (see Calcium carbonate)			
Wild cherry bark, thin, nat., bls	lb.	.20	—
Thin, rossed, bls.	lb.	.21	—
Wintergreen oil, USP, nat., northern, cns	lb.	6.35	10.30
USP, nat., southern, cns	lb.	3.75	4.10
Wintergreen oil, syn (see Methyl salicylate).			
Witch hazel bark, bls.	lb.	16	.17
Witch hazel leaves, bls.	lb.	.22	—
Wollastonite, fine, bgs., c.l., works	ton.	39.50	—
bgs., l.c.l., ex whse	ton.	56.00	—
Medium, bgs., c.l., works	ton.	27.00	—
bgs., l.c.l., ex whse	ton.	44.00	—
Wood alcohol (see Methanol).			
Wood oil (see Tung oil).			
Woolfat, crude (see Degras).			
Woolfat, USP (see Lanolin).			
Wormseed, Levant, bgs	lb.	4.25	4.50
Wormseed oil (see Chenopodium oil, NF).			
Wormwood oil, [illegible]	lb.	5.50	—

Xylene, coaltar, indust., tanks, works—			
Bethlehem, Pa.	gal.	.34	—
Birmingham dist.	gal.	.32	—
Chicago, dist.	gal.	.34	—
Cleveland dist.	gal.	.34½	—
Geneva, Utah	gal.	.29	—
Johnstown, Pa.	gal.	.33	—
Lackawanna, N. Y.	gal.	.35	—
Lone Star, Tex.	gal.	.33	—
Lorain, Ohio	gal.	.33	—
Middletown, Ohio	gal.	.34	—
Minnequa, Colo.	gal.	.34	—
Philadelphia dist.	gal.	.34	—
Pittsburgh dist.	gal.	.32	—
Sparrows Point, Md.	gal.	.34	—
Terre Haute, Ind.	gal.	.34	—
Youngstown, Ohio	gal.	.32½	—
Xylene, petroleum, indust., tanks, works—			
Bayonne, N. J.	gal.	.34	—
Baytown, Tex.	gal.	.33	—
Chicago, Ill.	gal.	.34	—
Houston, Tex.	gal.	.33	—
Philadelphia, Pa.	gal.	.34	—
Providence, R. I.	gal.	.34	—
Wood River, Ill.	gal.	.34	—
Xylenol, cryst., 60°-62° C., m.p., dms., l.c.l., works	lb.	.40	—
Cryst., 56°-58° C., m.p., dms., l.c.l., works, frt. equald	lb.	.33	—
dms., l.c.l., same basis	lb.	.23	—
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis	gal.	1.25	—
dms., l.c.l., same basis	gal.	1.30	—
tanks, same basis	gal.	1.05	—
Xylenol fraction, b.r. 7-9° C., dry at or below 227° C., dms., c.l., same basis	gal.	1.35	—
dms., l.c.l., same basis	gal.	1.40	—
tanks, same basis	gal.	1.15	—
Xylidines, mixed o-m-p, dms., c.l., or t.l., works	lb.	.39	—
dms., l.c.l., same basis	lb.	.40	—
tanks, same basis	lb.	.38	—

Xylol

Xylol quotations, both coaltar and petroleum, may now be found under Xylene.

Y

Yara, yara, cns.	lb.	2.15	2.6.
Yeast, brewers, debittered, USP, Saccharomyces dlvd	lb.	.27	—
Dry, USP, 50 Int'l B units per gram, 100-lb dms	lb.	.47	—
Yeast, brewers, dry, USP, 90 Int'l B units per gram, 100-lb. dms	lb.	.52	—
200 Int'l B units per gram, 100-lb dms	lb.	.6	—
300 Int'l B units per gram, 100-lb dms	lb.	.60	—
Torula, USP, dlvd	lb.	.18	—

Yellow Pigments

Yellow pigment quotations, formerly grouped under one heading, are now listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls.	lb	4[illegible]	42
Ylang-ylang oil, Bourbon, bots	lb.	19.00	25.00
Bourbon, extra, bots	lb.	28.00	40.00
Madagascar, bots	lb.	No Stocks.	
Yohimbine hydrochloride, bots, tins.	oz.	3.75	4.25

Z

Zein, bgs., 36,000-lb. lots or more,	lb.	.38	—
bgs., 1,000 to 36,000-lb lots, works,	lb.	.40	—
bgs., smaller lots, works	lb.	.43	—
Zinc acetate, NF, VIII, dms.	lb.	.53	—
Tech., dms., works	lb.	.29½	.29¾
Zinc borate, bgs., c.l., dlvd E	lb.	.192	—
bgs., l.c.l., dlvd E	lb.	.202	—
Zinc chloride, NF, gran., dms	lb.	.42	—
Precip., powd., dms.	lb.	.26	—
Soln., 50%, dms., c.l., works,	100 lbs.	5.80	—
dms., l.c.l., works	100 lbs.	6.40	—
tanks, works	100 lbs.	5.15	—
Zinc chloride, tech., fused, dms., c.l., works	100 lbs.	10.70	—
dms., l.c.l., works	100 lbs.	11.20	—
gran., fib. dms., c.l., works,	100 lbs.	11.45	—
fib. dms., l.c.l., works	100 lbs.	11.95	—
Zinc chromate, bbls., dlvd.	lb.	.29	—
Basic, bbls., dlvd.	lb.	.34	—
Zinc cyanide, dms., 1,000-lb. lots or more, works	lb.	.53	—
dms., smaller lots, works	lb.	.57	—
Zinc dust, coml., bbls., c.l., works	lb.	.1360	—
Pigment, bbls., c.l., works	lb.	.14	—
bbls., l.c.l., works	lb.	.15	—
Zinc fluoride, bbls., works	lb.	.49	.50
Zinc hydrosulfite, dms., c.l., frt. alld	lb.	.21½	—
dms., l.c.l., frt. alld	lb.	.23½	—
Zinc metal, prime western slabs, E. St. Louis	lb.	.10	—
Prime western, slabs, New York,	lb.	.10½	—
Zinc naphthenate, liq., 8% Zn., dms.,	lb.	.24½	—
10% Zn, dms., frt. alld.	lb.	.30	—
Zinc nitrate, tech., cryst., bbls., works	lb.	.20	—
Zinc oxide pigment, American process, lead-free, bgs., c.l., frt. alld	lb.	.14½	—
bgs., l.c.l., same basis	lb.	.15½	—
leaded, 35%, bgs., c.l., mills, frt. alld	lb.	.15½	—
bgs., l.c.l., same basis	lb.	.16½	—
50%, bgs., c.l., same basis	lb.	.15⅞	—
bgs., l.c.l., same basis	lb.	.16⅞	—
leaded, 35%, bgs., c.l., mills, frt. alld	lb.	.15½	—
bgs., l.c.l., same basis	lb.	.16¾	—
Zinc oxide, French process, red seal, bgs., c.l., same basis	lb.	.15¼	—
bgs., l.c.l., same basis	lb.	.16¼	—
white seal, bgs., c.l., same basis,	lb.	.16¼	—
bgs., l.c.l., same basis	lb.	.17¼	—
USP, cns., c.l., frt. alld	lb.	.17¼	—
cns., l.c.l., same basis	lb.	.18¼	—
Zinc oxide Pac. Coast prices 1c. higher.			
Zinc phenolsulfonate, NF, gran., dms	lb.	.43	.44
NF, powd., dms.	lb.	.46	.53
Zinc resinate, precip. 7.2-7.6% Zn, dms., frt. alld	lb.	.29	—
Zinc silicofluoride, dms., works	lb.	.12½	.14
Zinc stearate, tech., USP, cns., c.l.,	lb.	.41	—
cns., l.c.l.	lb.	.42	.46
Zinc sulfate, powd., monohydrate, 36% Zn., bgs., c.l., dlvd. E	100 lbs.	8.75	—
bgs., l.c.l., dlvd. E	100 lbs.	9.75	—
USP, gran., dms.,	lb.	.26	—
Zinc sulfate in bbls. 40c. higher.			
Zinc sulfide, pure, bgs., c.l. dlvd	lb.	.2530	—
Zinc undecylenate, dms.	lb.	2.00	—
Zinc yellow (see Zinc chromate).			
Zinc-ammonium chloride, bgs., c.l., works	100 lbs.	10.25	—
bbls., c.l., works	100 lbs.	10.85	—
bbls., l.c.l., works	100 lbs.	11.35	—
Zinc-formaldehyde sulfoxylate basic, dms., c.l.	lb.	.25½	—
dms., l.c.l.	lb.	.26	—
Zircon (G), gran., bgs., c.l., works,	lb.	.03⅛	—
Zircon (G), gran., bgs., 5 tons to c.l., works	lb.	.03⅜	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04	—
bgs., smaller lots, works	lb.	.06½	—
Zircon (G), milled, bgs., c.l., works,	lb.	.04⅛	—
bgs., 5 tons to c.l., works	lb.	.04⅜	—
bgs., 1 ton to 9,999-lb. lots, works	lb.	.04⅝	—
bgs., 500-1,999-lb. lots, works	lb.	.07½	—
Zircon (G) in barrels 1c. higher			
Zirconium acetate, 13% soln., ZrO_2, c.l., 30,000 lbs minimum, works	lb.	.23	—
Zirconium hydride powd., dms., works	lb.	7.25	9.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works	lb.	1.50	—
Electric-fused, lump, bgs., 500 to 1,999-lb. lots, works	lb.	.45½	—
bgs., smaller lots, works	lb.	.48	—
Electric-fused, milled, bgs., c.l., works	lb.	.59	—
bgs., 5-ton lots, works	lb.	.59½	—
bgs., 1-ton to 9,999-lb. lots, works	lb.	.60	—
bgs., 500 to 1,999-lb. lots., works	lb.	.60½	—
bgs., smaller lots, works	lb.	.63	—
Glass polishing grade, 94-97% ZrO_2, bgs., works	lb.	.53	.63
Opacifier grade, 85-90% ZrO_2, bgs.,	lb.	.27	.50
Stabilized oxide, 91% ZrO_2, milled, bgs.	lb.	.62	.83
Zirconium oxychloride, cryst., cns., 5-ton lots, works	lb.	.35½	—

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Farm—City Relationships

"It is desirable that those who work on the farms and those who work in the cities develop greater understanding of their mutual problems and interdependence in a closely knit economy," said President Eisenhower two years ago in proclaiming National Farm-City Week at the time of its inauguration. Six weeks ago, in proclaiming the third observance of that event, the President said: "It is fitting that all citizens, rural and urban, should recognize their interdependence in contributing to the strength, character, and prosperity of our nation, and increasingly important that the public should understand the mutuality of interests of those who live on farms and those who live in cities." Those bits of advice are good—whether one look upon the problems and interests as mutual or respective.

Several hundred organizations of farm or city folks in all walks of life, under the general guidance of a national organization, have been planning and preparing for the third annual effective observance of National Farm-City Week November 22 to 28—Thanksgiving Day being a particularly fitting climax. Their primary purpose is to instill in all residents of rural and urban communities a desire for and a means of better understanding of the problems, needs, and capabilities of each other in neighborliness and partnerships.

There is much to be learned on both sides before any desired degree of understanding and acceptance can be reached. The farm folks get from what they see in the newspapers a picture of city folks which is in no way contributory to any desirable understanding. The same is true, for a different reason, with respect of the impression made upon many, if not most, city folks by the published data on what it costs taxpayers to deal with the unjustifiable consequences of unbridled farm production, with federal governmental spending on agriculture running at a rate of $5,000,000,000 a year. They find it difficult to feel neighborly toward those whom they, usually with but little justification, blame for the high cost of food and the cutting off of needed supplies of milk until a higher price is set.

Much can be done to get better understanding between farm and city folks by way of presentations of their respective concepts of and attitudes toward better relations. The purpose of National Farm-City Week is to make such presentations and attendant discussions the concern of local communities where it is possible to have the appropriately mixed type of gathering—radio and television are making such projects much simpler and more effective because of the participation which they make possible. Still better results are to be obtained if the efforts are carried closer to the needs and given the full attention coming to such needs by reason of the human behavior factors involved.

Those who are planning from the urban—and business—side to get properly acquainted with the real problems of their agricultural fellow-citizens can find much worth knowing and usefully applicable in two books—"Farm Trouble" and "Farmers at the Crossroads"—commented on in this week's OPD "Bookshelf" column on this page.

For International Business

What a leading executive of the United States chemical industry had to say about the desirability, necessity, duty, obligation, and wisdom of investment abroad by American industry on page 7 of last week's OPD takes on a special significance under the announcement that the central theme of the forty-fourth annual convention sponsored by the National Foreign Trade Council will be "International Trade and Investment Open Boundless Economic Frontiers." Panel sessions of the convention, which will be held in New York November 18 to 20, will cover operational problems in conducting foreign trade, encompassing investment, production, financing, marketing, taxation, transportation, insurance, industrial relations, and education.

Particularly of significance, in the light of the views expressed by the chemical executive, is the extent of governmental participation in the convention's program. Speakers representing the government of this country will include the Secretary of Labor, the deputy Under-Secretary of State for economic affairs, and the US executive director of the International Monetary Fund. Other speakers will include diplomatic representatives of Belgium, Britain, and Japan. Prominent members of business concerns and organizations in Canada and Mexico also are slated as speakers. Top executives in the foreign trade operations of the iron and steel, automobile, petroleum, shipping and other domestic industries also will address the gatherings, which are expected to have an aggregate attendance of more than 2,000.

The foreign trade convention should be of special interest to the US chemical industry; despite the fact that published references to its programs have not listed any participants from that group. The interest is special because chemicals are well out in front among the products of rapidly progressive recovery and expansion of industrial activity in Europe and Asia. That progress is being somewhat hampered by lack of capital, inadequate supplies of materials, and obsolescence of equipment. It is in those areas of need that there is a quite promising opportunity for investment by US industry, particularly in the smaller countries—Belgium-Luxembourg being an example especially interesting chemically.

There is much to be studied analytically—and dealt with realistically—also because of the active interest being taken by European chemical interests—and some Asian—in Latin America, especially in connection with the mineral resources of those countries.

Some students of international trade and industrial conditions and outlooks are particularly impressed by what they regard as special attractions in industrially sluggish and otherwise underdeveloped countries, presented in opportunities for development and utilization of natural resources. They know that there are problems to be faced, primarily one of construction of facilities for getting to and getting out the utilizable deposits and finding a practicable physical approach to existing world markets for the products of their utilization.

It is quite commonly expected that next week's foreign trade conference will give more than a little attention to what may or will be done in the direction of GATT continuance in the coming session of the United States Congress. A bit of cloudiness has come over the optimistic expectations of those who like the agreement because of the recent imposing by France of an emergency tax of 20 percent on all imports. There is also some doubt and uncertainty in expectations with reference to what will be the influence and effects on the general agreements when the common market of western Europe—and that proposed for the northern part of that continent—becomes operative.

Those who believe in GATT, at least in general terms, are much pleased to learn that it has not reversed the relationships of the foreign trade of this country, when they read in the official Foreign Trade Weekly that "US Exports Expand Sharply; Imports Show Small Gain." Those who have a desire of some sort for specific terms in such matters are studiously perusing the tabulations under that heading. But, all are leaning toward the belief that the trade unbalance, or dollar lag, or whatever it may be called will wisely be counteracted by investments in those countries on the downside which are good customers. They are not yet ready to advocate the closer balancing of the foreign trade by way of anything like a generally applied freedom of trade into this country.

Washington Talks It Over

Labor Controls Legislation May Be in Offing as Politicians Toy With Breaking 'Do-Nothing-in-Election-Year' Rule.

By Ralph L. Cherry
Chief, OPD Washington Bureau

There is a chance that congress may enact legislation in the area of labor controls next session in spite of the fact that 1958 is a congressional election year. The universal rule of the politician is: Never do anything to antagonize a large block of voters in an election year. But this time it may be different. The large block of voters may not be the labor leaders, but the general public.

Prospects of congressional action for curbs on union bosses have been raised by such recent developments as the racketeering disclosures of the McClellan investigating committee of the senate, and word from administration sources that it is preparing legislation along those lines. The election of James R. Hoffa as president of the teamster's union in the face of the corruption charges of the McClellan committee has moved many lawmakers off the fence and into the ranks of those demanding action.

Details of the White House proposals are still being worked out, but they are expected to include laws to protect union members' rights to the secret ballot, to regulate picketing of employers to force them to recognize unions, and other curbs. The concern is that some groups in congress will demand severe restrictions on the unions in other directions and create such a row that the entire move will bog down in one house or the other.

Some of the proposals being advanced as riders to any legislative plan of the White House are such things as a federal right-to-work law, application of antitrust laws to unions, closing of secondary boycott loopholes, a federal code of rights for union members, public disclosure of union financial reports and penalties for false reports, control of welfare and pension funds, bars against political use of union funds, and others.

Study of Social Security

The long-range financial position of the Social Security System is to be put under review by a twelve-man advisory council just appointed at the direction of congress when it broadened and amended the law last session. The aim will be to determine whether the tax schedules as now provided for in the law will be enough to sustain the financial burden being increasingly placed on the fund as more and more workers enter the retirement period.

Under the present tax schedule, a rate of 2¼ percent applies each to employers and employees on payrolls up to $4,200 annually. This will be increased to 2¾ percent in 1960. The self-employed rate is scheduled to increase then from 3⅜ percent to 4⅛ percent. Provision is made for further increases at five year intervals until, by 1975, the rates would be 4¼ percent each on employers and employees—a total payroll tax of 8½ percent—and 6⅜ percent on self-employed persons.

The system already pays benefits to almost 11 million persons and provides future protection to many more millions—in fact more than nine out of ten workers and their families are now covered. In the last fiscal year, the system paid out about $6.5 billion in benefits and collected $7.1 billion in taxes and other income. The trust fund now totals about $23 billion.

Selections for Your Bookshelf

FARM TROUBLE. By Lauren Soth. Cloth; vii + 221 pages, 5½x8½ inches. Princeton: Princeton University Press. $3.75.

The author of this timely treatise is a native of Iowa. His basic agricultural exprience apparently has been more academic than practical, comprising higher education in agricultural journalism and economics. As a newspaper editorial writer, he won a Pulitzer Prize in 1955 for advocacy of the exchange of farm delegations between this country and the Soviet Union. He was a member of such a delegation, which may or may not have learned something along the lines of the more recent transpirations about conditions under the Soviet agricultural program.

Mr. Soth's point of view on the farm problem is that of an economist, not of a politician or a prop-seeker. His appraisal of the problem is in terms of specific needs, as he sees them from that point of view. He concerns himself with the adjusting of agriculture to the needs and demands of a growing and otherwise changing industrial economy. He advocates a change in the public policies related to agriculture, which will be more promotive of such adjustment. He would have selective acreage controls and price supports replaced with direct subsidies on crops, relative to available market prices, and on soil conservation. He holds that there are too many farmers and quotes statistics showing that the operating of a typical 24-acre farm requires as many days of man labor in a year as are required on an equally typical 120-acre farm. He also makes it plain why farm owner-operators are averse to consolidating their several small holdings into a tract of more economically operative size. Consequently, he says, there is a stagnation of one-third of the farm population at a very low level of poverty.

In his belief that "catchwords, slogans, and cliches" have been predominant influences on federal farm policies, the author gives a realistic evaluation of such overworked shibboleths as "The Family Farm," "The Rural Life," "Parity," and "The Middleman." He treats quite convincingly the lack of a realistic basis for the popular concept of agriculture as industrially fundamental. He cites the need for education for farmers—but not along the lines of being businessmen, putting as much study, and money, and effort behind the distribution of their products as are devoted to production. He has an idea why the farmer cannot get more directly into the creating and serving of an adequate consumer demand for farm products; but he opines that a "factory-type" farm system would not have any more of an appeal than would the freezing of farm conditions in their present status. "So," he concludes, "we will continue to muddle along by compromise,

—Continued on page 79

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Distilled Mixed Tocopherols Concentrate N. F. originates from domestic vegetable oils. Molecular distillation and associated processing build up high vitamin E potency. The (d)alpha-tocopherol content is standardized at 50% of the total (d)tocopherol content. Type 4-34 provides 340 mg of (d)tocopherol, or 253 International Units of Vitamin E per gram; Type 4-50, 500 mg of (d)tocopherol, or 372 International Units of Vitamin E per gram. Both are clear red oils with a mild taste and odor—an excellent way to provide the vitamin E in therapeutic and multivitamin capsules. They are also effective antioxidants.

Distilled *d*-Alpha-Tocopheryl Acetate Concentrate N. F., available with either 340 or 476 International Units of Vitamin E per gram, is a clear yellow oil. It is stable to air and to most pharmaceutical materials. Taste and odor are mild. It is wholeheartedly recommended for tablets, gelatin capsules, and drop preparations.

Crystallized *d*-Alpha-Tocopheryl Acetate N. F. is a light yellow, viscous oil at room temperature. With 1360 International Units of Vitamin E per gram, it has the highest biological potency of any commercial vitamin E bulk material we know of. This makes the product readily adaptable to solubilized preparations, tablets, and capsules—wherever the largest dosage of vitamin E in the least bulk is wanted.

Crystalline *d*-Alpha-Tocopheryl Acid Succinate is a nearly tasteless and odorless white powder. At a potency of 1210 International Units of Vitamin E to the gram, it lets you get the maximum dry vitamin E into the least space. It is a most satisfactory material for incorporating vitamin E in tablets and dry-fill capsules, or in other applications where liquid forms of vitamin E are difficult to use. It melts at about 76 C and is stable to atmospheric oxidation.

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Heavy Chemicals

Current business continues spotty, and sellers of heavy chemicals don't see much of an improvement between now and the end of the year. Producers point out that ordinarily, business tapers off in the last two months of any given year. Last year was the exception. Steel operated in excess of capacity to make up for a strike in midsummer, and such large volume chemicals as chlorine were pushed right up to the hilt through the normally slow period of late December and early January.

An optimistic note was introduced into the market last week by figures furnished by the Bureau of Census for the month of August.

August production levels of industrially important inorganic chemicals were generally higher than those reported for July, the bureau says. What's more, they were higher than for the corresponding month in 1956.

Chlorine and the alkalies registered significant declines, the figures show, but output for thirty-seven of the fifty-two chemicals was higher in August than in July, and production of twenty-seven chemicals was higher than that for August, 1956.

The mercury market continued to sag on spot, as sellers had excess stocks they were trying to sell off. Other nonferrous metals markets were generally quiet and on the weak side, with the exception of copper, which was slightly firmer.

Anhydrous aluminum chloride was lower, as reported the previous week, but producers of liquid and crystal said that at present, they had no word of possible reductions.

The American Paper and Pulp Association reported production for the week ended November 2 at 93.5 percent of theoretical capacity, as compared with the revised figure of 93.6 percent for the previous week, and 100.1 percent for the corresponding week of last year.

Price Trends

Advanced

None

Reduced

Mercury, $2 per flk.
Tin, ½c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
103.89	103.95	104.05	102.34

For Current Prices See Page 9

Acids

Chromic—Contracts for the first quarter of 1958 are being written at current prices. There has been an incerase in demand for plating of appliances for the Christmas trade, as well as for use in manufacture of automobiles. Sellers say they have plenty on hand.

Hydrochloric—Demand is still spotty, and producers don't look for much improvement for the rest of the year. Prices are expected to hold the line, however, and it is reported that contracts are being negotiated for the first quarter at present quotations.

Hydrofluoric—The hydrofluoric acid industry consumed a whopping 289,523 tons of fluorspar in 1956. This figure compares with 248,218 tons in 1955, and 225,096 tons in 1954.

The figures are reported by the Bureau of Mines. The bureau also points out that shipments consumed by the HF makers in the first quarter of this year reached 77,903 tons. This was about 11 percent more than during the 4th quarter last year.

Total consumption of fluorspar for the first quarter reached the highest level ever recorded, 166,563 tons. Stocks of fluorspar at consumers' plants March 31 rose slightly, to 24,623 tons from 23,187 tons on January 1.

Phosphoric—Business was nothing more than routine for food grade acid. Fertilizer consumption continued in the doldrums, and wasn't expected to pick up for some time. Current prices are expected to hold during the first quarter of 1958.

Sulfuric—Demand continued to sputter along at about the same levels established during October. Price picture was firm, and it was assumed by the trade that current quotations would carry over into the first quarter of 1958.

Bases and Salts

Aluminum Chloride—Anhydrous is currently offered at 15c. per pound, drums, carlots or truckloads, f.o.b. works, freight equalized. Price was reduced late the previous week.

Producers of crystal and solution say they have no plans at present to reduce prices, despite the drop in the anhydrous quotation.

Caustic Soda—Demand for caustic is moderately sustained, and producers have plenty around to fill immediate needs. The alkali industry reports that it is currently writing next quarter's contracts at this quarter's prices.

Chlorine—Makers concede that there is plenty of chlorine around. Consumers can get what they need without delay. This is a far cry from the tight position witnessed in the trade only a year ago.

Since that time, the need for chlorine has tapered off, reflecting the general levelling-off in business conditions. At present, chlorine producers don't anticipate much of an upturn in demand during the next few weeks.

Lime—Lime output in 1956 set an all-time record, according to the Bureau of Mines. An increase of 1 percent, to over 10.5 million tons, was reported.

However, the bureau points out, the gain was registered entirely in the refractory lime category. Losses were registered in all other major classifications.

Lime for agriculture declined 17 percent; building lime, 8 percent; and chemical and industrial lime, 1 percent. Open-market sales of about 9 million tons gained 1 percent over 1955.

Of the total used or sold, 56 percent was in the form of quicklime; 21 percent hydrated lime, and 23 percent dead-burned dolomite (refractory).

Lime plant operations continue to be somewhat on the spotty side, with plants in some areas operating at or near capacity, while in other areas plants are operat-

Inorganic Chemicals Output: August

The following figures compiled by the Bureau of Census indicate production of industrially important inorganic chemicals, in tons.

	August	July
Aluminum chloride, anhyd.	2,501	2,245
liq., cryst.	1,288	1,103
Calcium carbide	87,581	83,009
Carbon dioxide, liq., gas, solid	34,303 64,669	34,291 68,373
Chlorine gas	323,404	333,137
Chromic acid	1,223	702
Hydrochloric acid	77,062	75,785
Hydrofluoric acid	6,786	6,323
Nitric acid	234,772	210,125
Phosphoric acid	353,015	331,608
Phosphorus elemental	25,086	27,774
Phosphorus oxychloride	1,291	1,522
Phosphorus trichloride	1,440	1,513
Potash, caustic, liq. solid	6,289 1,212	5,698 1,402
Soda ash, light dense natural	214,970 155,004 54,040	184,791 152,762 50,340
Soda, caustic, liquid dry	354,015 44,638	362,924 43,767
Sodium bicarbonate	7,788	6,568
Sodium metal	10,681	10,840
Sodium phosphate, mono, Dibasic Tribasic Meta Tetra Acid pyro Tripoly	556 2,523 4,033 4,930 10,524 1,218 60,071	725 1,539 2,934 4,162 6,316 1,352 40,779
Sodium silicate	46,045	41,156
Sodium sulfate, anhyd. Glaubers salt Salt cake, crude	24,645 9,242 55,671	21,133 8,104 57,344
Sodium sulfide, conc. other	2,226 621	1,510 546
Sulfur dioxide	4,367	4,941
Sulfuric acid, gross	1,301,256	1,285,869

Heavy Chemicals

ing at about 75 percent of capacity. In the overall, the average is about 85 percent.

It had been felt that demand for lime by the steel industry would rise materially in the fourth quarter, when the demand for steel for automobile manufacture would increase.

This has not been the case, however, and little, if any, increase in lime consumption by the steel industry has been noted.

The general feeling is that no increase over the above mentioned rate of operation can be anticipated until after the first of the year.

Domestic sales of open-market lime in July (753,463 tons), increased slightly over the previous month's output (721,872 tons), according to reports by producers to the Bureau of Mines.

Lime for agricultural, chemical and refractory uses increased, whereas a decrease was noted in building lime. Chemical lime sales rose to 446,658 tons in July from 419,396 tons in June.

Refractory (dead-burned dolomite) sales increased to 188,752 tons during July, as compared with 178,624 tons in June.

Lithium Salts—This market remains soft and keenly competitive. However, prices, while subject to shading, have held unchanged for the past few weeks.

Technical carbonate is currently listed at 73c. per pound, drums, carlots, delivered; 79c. per pound, ton-lots, and 86c. per pound, smaller lots, same basis.

Lithium chloride prices range from 90c. per pound, large contract lots, f.o.b. producers' shipping points, to 95c. per pound, carlots, delivered. Smaller lots are offered from $1 to $1.06, delivered.

Lithium hydroxide monohydrate is currently quoted at 75c. per pound to 76c. per pound, freight allowed, as to quantity.

Sodium Phosphates—There was stiff buyer reaction to price increases for some of the phosphates October 1. Reason for this was that consumers had ordered up to the hilt just prior to the advances. Producers say that current business is picking up as purchasers clean up their stocks.

Sodium Silicates—Producers are negotiating contracts for the first quarter of 1958 at current prices. While not predicting the price status of silicates beyond the January-March period, sellers believe that in all likelihood, prices will continue about the same.

Sodium Sulfate—Showing the increase in demand from paper mills in August over July levels, stocks of crude saltcake in the hands of producers declined from 66,030 tons at the end of July to 61,181 tons at the end of August. The figures are from the Bureau of Census.

Nonferrous Metals

Copper—The market was fairly quiet. Primary producers held prices at 27c. per pound, delivered US destinations. Custom smelters, reflecting a tightening supply position, raised their price to 26c.

Mercury—This material continued to decline on spot, despite the bolstering effect of the government buying domestic mercury for the stockpile.

Last week, metal declined to $227 per flask in large quantity offerings. Lots of one to five flasks were reported bringing as high as $236 per flask early in the week, but consuming interest died down considerably by Friday.

There appeared to be a good bit of mercury around that sellers were anxious to get rid of. As a result, buyers tended to adopt await-and-see attitude.

Silver—Bullion was quoted at 90⅝c. per troy ounce, spot, on Friday.

Tin—Market for straits metal fluctuated narrowly, and spot tin was quoted at 89½c. per pound, on Friday.

US Magnesium Plant

—Continued from page 5

trust aspects of the sale to Dow, which already spreadeagles the magnesium field, GSA issued this statement:

"In connection with the sale of the Velasco plant to Dow, GSA solicited the advice of the Department of Justice and the Department of Defense. On the basis of the advice received, it was determined to be in the public interest to sell the plant."

Speaking for the company, Dr. Leland I. Doan, Dow president, said, "We feel certain that the sale will lead ultimately to a healthier, more natural supply situation."

New York ASTM to Meet; Hollomon of G.E. Will Speak

The New York district meeting of the American Society for Testing Materials will be held in the basement auditorium of the G-E building, 570 Lexington avenue, New York, November 19 at 7:30 p.m. Dr. John H. Hollomon, manager of the metallurgy and ceramics research department of General Electric Company, the guest speaker, will discuss the revolution that is taking place in the application of physics and chemistry to the behavior of engineering materials.

Dr. Candau Accepts Offer To Head Up WHO Again

Dr. M. G. Candau, director-general of the World Health Organization, has accepted the offer made by the World Health Assembly that met in Geneva last May to renew his contract to head the organization for a second term. In his acceptance, Dr. Candau asked that the renewal be made for two years, starting July 21 when his present term of office expires.

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Jobs & People

Air Reduction Chemical Company, a division of Air Reduction Company, New York—**R. C. Gilardi** has been put in charge of Airco's new Chicago sales office.

American Cyanamid Company, New York—**Dr. Francis E. Fontaine** has been named director of Cyanamid's Pearl River, N. Y., research laboratories.

Ansul Chemical Company, Marinette, Wis.—**William A. Peters** has joined Ansul as an analytical chemist.

H. J. Baker & Bro., New York—**Clarence Fitzgerald** has joined the Atlanta, Ga., sales staff of H. J. Baker & Bro.

Baker Castor Oil Company, Bayonne, N. J.—**A. M. Lipscomb** has been added to Baker's Pacific Coast sales staff in Los Angeles.

Godfrey L. Cabot, Inc., Boston, Mass.—**Raymond P. Rossman** has been appointed director of Cabot's newly-formed carbon black technical department.

Dodge & Olcott, Inc., New York—**Herbert G. Kainik** has been made technical director of D&O perfume sales.

Emery Industries, Inc., Cincinnati, Ohio—**Orville W. B'Hymer** has been promoted to the new post of customer service manager in Emery's fatty acid sales department.

Pennsalt Chemical Corporation, Philadelphia—**Dr. Francis Leslie Scott** has been made a project leader in Pennsalt's technical division.

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Gum Turpentine Chemicals Seen Entering Wider Field

Wider use of research-devloped chemicals from gum turpentine as catalysts in the production of polymetric materials, including synthetic rubber, was predicted by the Department of Agriculture last week as a result of its naval stores research work.

The department announced that Secretary of Agriculture Ezra Taft Benson has granted a license to American Cyanamid Company, New York, for use of a USDA-patented process involving turpentine derivatives. The company was previously licensed to employ a companion USDA patent on methods for making the pine gum chemicals themselves.

Western Chemical Group Schedules Nov. 14 Meeting

The Western Chemical Market Reserch Group will meet November 14 in the Marines' Memorial Club, San Francisco. Cocktails will be served at 6 p.m. and dinner an hour later.

The speaker will be Dr. G. M. Gantz, supervisor of the technical section of the technical department of Antara Chemicals Division of General Aniline & Film Corporation. His topic will be "Ultraviolet Absorbers."

Chemical Men Keep

—Continued from page 5

previous specific rates. Duties on many items have undergone substantial increases as a result of the new tariff.

The new tariff together with other changes had the effect of substantially modifying concessions granted by Brazil under the GATT, but these were waived by the GATT countries on the condition that Brazil would undertake to begin negotiations of new concessions.

Among items on which tariff concessions had been granted in the past by Brazil to the United States were the following: Pine resins, Burgundy pitch, colophony, and black pitch; turpentine; magnesium or white cement; mineral greases; paraffin or vaseline oil; lamp black or carbon black; scale removers for boilers; tanning extracts with a base of chromium salts; soaps and tetraethyl lead.

Also, ready-mixed paints; accelerators, and anti-oxidants for rubber; salicylin, sulfanilic, and sulfonic acids; benzidine hydrochlorate; borax; dinitrochlorobenzene; intermediates for the manufacture of aniline dyes; naphthalamines and naphthols; nitroanilines; codliver oil; granulated medicinal preparations and penicillin.

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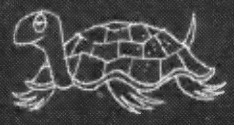
Lactose is slow to ferment, 

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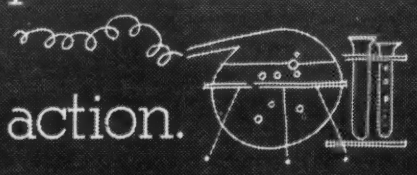
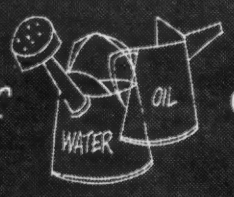


action. Acts as a superior 

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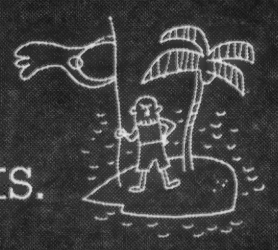
production of sequestering agents. 

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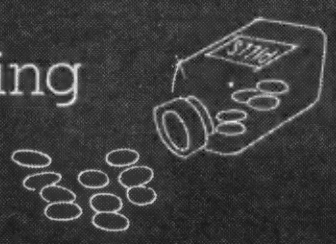
filler and coating 

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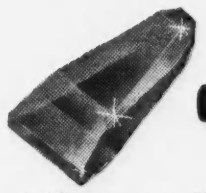
What can amazing Lactose  do for your product?

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Aliphatic Organics

Business in most chlorinated solvents was reported spotty last week. One result was that these materials were generally available in abundance. Prices have been steady at quotations in effect in the third quarter. In most cases, producers were committed to these prices for the balance of the year. Specifically, a leading producer said that he had signed contracts binding through the fourth quarter that obligate him to sell carbon tetrachloride, chloroform, methylene chloride and perchloroethylene at prices in effect in the third quarter.

The market for refined glycerine remained relatively quiet. Supply and demand were in fairly good balance in general, with producers' inventories ample to take care of current and anticipated consumer requirements. Crude glycerine was a little firmer in the middle west, but prices in general remained unchanged.

Blackstrap molasses prices declined ½ cent to ¾ cent per gallon at most southern port terminals and midwestern feed mixing centers in the week ended last Tuesday, Agricultural Marketing Service reported. The market was generally depressed in spite of fair to good pasture conditions in most parts of the nation. Freezing temperatures downgraded pastures in only a few states. In general, supplies were adequate to liberal and demand was slow. Minimum blackstrap price at New Orleans was off ½ cent per gallon. In isolated instances, dealers reported some improvement in demand. Trade was steady along the eastern seaboard, with prices mostly unchanged. The New York price for blackstrap held to its former level.

Demand for acrylonitrile was reported as strong, with volume well ahead of that noted at this season last year. Synthetic fibers continued to account for most consumption, but the grease and oil resistant nitrile-type rubbers were a major market factor. Nitrile latices were moving in heavy volume in paper treatment and as non-woven fabrics.

The market for ethylene oxide was notably strong. An important firming factor appeared to be the role of the oxide in production of ethylene glycol, which, in turn, has been in heavy demand for use in antifreeze compounds. The consumption pattern of the oxide has become particularly well diversified, since it is a fundamental building block for manufacture of all glycols, polyglycols, the ethanolamines and the glycol ethers.

Pentaerythritol was a bit slow but was holding its market position competitively.

Molecular structure and reactive properties of itaconic acid continued to arouse interest at the research-development level, but volume commercial traffic was apparently waiting on lower prices. Those in turn were waiting on improved production technics and the gearing of plant operations to commercial volume.

The commission's figure on output of hexamethylenetetramine in July of this year indicated it was far and away the least turned out in any previous month in 1957 or in any month throughout 1956.

n-Butyl Alcohol—Primary production amounted to 17,975,279 pounds during July of this year, the Tariff Commission reported, compared to 16,056,781 pounds produced in the month previous and 15,819,512 pounds turned out in July, 1956. The July figure brought to 64,725,209 the aggregate production reported for four of the first seven months in the calendar year. Over the first seven calendar months in 1956, when data were reported for each month, output added up to 136,996 311 pounds.

The commission withheld production data for March, April and May, ostensibly in order to avoid publication of information that could be pinpointed to individual companies. Trade sources explained that, at that time, fermentation alcohol had just about dropped out of the picture, and that the total output was almost entirely concentrated in the hands of two major synthetic producers. Either of these could have, by subtraction, have deduced the other's output to a very close approximation.

Price Trends

Advanced
None

Reduced
Molasses, New Orleans, ½c. per gal.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
131.11	*131.10	131.10	130.43

* Revised

For Current Prices See Page 9

More recently, heavy shipments of Cuban molasses were contracted for at a price making it feasible for fermentation producers to re-enter the market in a strong competitive position, and this molasses was earmarked for fermentation. Evidently, it has been the impact of this material on the current market that induced the commission once again, beginning with the figures for June, to publish n-butyl alcohol production data.

Carbon Tetrachloride—A leading producer said last week that the company had been signing contracts for the fourth quarter based on prices unchanged from the quarter previous. The market, this source said, was rather spotty. Supplies were plentiful.

Production during July of this year rose to 29,175,059 pounds, compared to 28,908,942 pounds produced in the month previous and 19,117,800 pounds turned out in the corresponding month in 1956. Aggregate for the first seven calendar months, some 192,863,563 pounds was produced this year. In the like period in 1956, output added up to 175,245,300 pounds.

Chloroform — Supplies were generally abundant in terms of short-term and anticipated consumer requirements. Trade sources noted that demand of late had been no more than spotty. Contracts binding through the fourth quarter guaranteed availability of material at prices unchanged from those that prevailed in the third quarter, trade sources reported.

Ethyl Ether—Total production of technical plus USP ethyl ether during July of this year amounted to 5,544,768 pounds, the Tariff Commission reported. By comparison, output was 5,417,723 pounds during the month previous and 6,987,546 pounds during July, 1956. Total production over the first seven months of the current calendar year was 42,027,981 pounds. The corresponding figure for the like period in 1956 was 43,020,422 pounds.

Ethylene Glycol—Trade in ethylene glycol was reported brisk, chiefly due to heavy demand for antifreeze compounds based on this material. The strength noted here was sufficient to bolster demand for ethylene oxide notably, the market position of the oxide depending in large part on its consumption in manufacture of the glycol.

Glycerine—This market remained relatively quiet last week. Supply and demand for refined material were in fairly good balance in general, with producers' inventories ample to take care of current and anticipated consumer requirements. Prices have long been unchanged.

Crude was a little firmer in the middle west. A large lot of saponification material was moved for delivery to an east coast port at 16½c. per pound, but this was regarded as distress material and the price probably not representative of the market at large. Asking prices appeared to range from 18c. to 18⅜c. per pound for saponification material in the middle west, with no takers at the upper end of the range, and around 17½c. per pound along the west coast.

Itaconic Acid—This item continued to be of interest, primarily at the commercial development level. Its molecular structure and reactive properties make it a natural for several important industrial applications, such as polyester resins, and the like. However, until consumption reaches a point, as is usual with new chemicals, where economies of production can sufficiently bring the price down, buying interest will remain largely exploratory. As large commercial possibilities develop into a consuming pattern, it was

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Aliphatic Organics

only natural to expect corresponding downward adjustments in prices.

Methanol—Total output of natural plus synthetic methyl alcohol during July of this year amounted to 112,068,278 pounds, the Tariff Commission reported, compared to 94,919,096 pounds turned out during the month previous and 127,846,372 pounds produced during July, 1956. That brought the aggregate output for the first seven months in the current calendar year up to 812,901,453 pounds (partly estimated). The aggregate figure covering the like period in 1956 was 886,268,938 pounds.

Synthetic output in July of this year was 110,833,238 pounds, compared to 93,677,416 pounds produced in the month previous and 126,518,372 pounds turned out during July, 1956. Synthetic production aggregated 804,262,814 pounds (partly estimated) over the first seven months of the current calendar year. It added up to 877,304,938 pounds over the like period in 1956.

Some 1,235,040 pounds of the natural product was yielded in July of this year, compared to 1,241,680 pounds produced in the month previous and production of 1,328,000 pounds during July, 1956. Aggregate output for the first seven months of the respective calendar years was 8,638,640 pounds this year, 8,964,000 pounds last year.

As reported by the Census Bureau, on a 100 percent methanol content basis, natural production was 186,000 gallons in July, 1957, compared to 200,000 gallons turned out in the same month in 1956. The aggregate for the first seven calendar months was 1,301,000 gallons this year and 1,370,000 gallons last year. Stocks on hand at producers' plants rose from 397,000 gallons as of the end of June of this year to 465,000 gallons as of the end of the month following.

Methylene Chloride—Trade sources reported that contracts binding through the fourth quarter gave consumers assurance of availability of methylene chloride at third quarter prices. Demand has been spotty lately, they pointed out, and supplies were abundant in light of current volume of trade and anticipated needs of industry through the balance of the current calendar year.

Molasses—Blackstrap prices declined ½c. to ¾c. per gallon at most southern port terminals and midwestern feed mixing centers in the week ended last Tuesday, Agricultural Marketing Service reported. The market was generally depressed in spite of fair to good pasture conditions in most parts of the nation. Freezing temperatures downgraded pastures in only a few states. In general, supplies were adequate to liberal and demand was slow.

Minimum blackstrap price at New Orleans was off ½c. per gallon, with quotations ranging from 12c. to 13c. per gallon and most sales consummated at 12¼c. to 12½c. per gallon.

In isolated instances, dealers reported some improvement in demand. Trade was steady along the eastern seaboard, with prices mostly unchanged. The New York price for blackstrap remained at 21c. per gallon.

Harvest of sugar cane was progressing in Louisiana and Florida with fair to good weather conditions. A total of 715,915 tons of cane had been harvested in Louisiana as of October 26, according to Agricultural Stabilization and Conservation Service. Trade reports indicated purity was good, and consequently yield of blackstrap per ton of raw sugar was averaging slightly below that of last year. Producer price for blackstrap as reported by the Louisiana Sugar Exchange was 12¼c. per gallon on November 4.

Perchloroethylene—Activity in this item last week was described as spotty. This was reflected in the fact that supplies for immediate and anticipated consumer requirements were generally plentiful. Producers have signed contracts binding through the fourth quarter making percholoroethylene available at the same prices that prevailed in the third quarter.

Tariff Commission reported that output during July of this year amounted to 14,398,903 pounds, slightly more than the 14,059,817 pounds turned out in the month previous and substantially more than the 10,890,334 pounds produced in July, 1956. Through the first seven calendar months of this year, production aggregated 115,557,924 pounds. Output over the like period in 1956 added up to 111,389,827 pounds.

Trichloroethylene—Business was said to be off a bit. Demand for this material for metal degreasing, which is dominant in the consumption pattern, has been rather sluggish.

DOW PRODUCT MANAGER: George E. Hardy, named by Dow Chemical Company, Midland, Mich., to be product manager of its newly-organized pharmaceutical chemicals section, which replaces the firm's fine chemicals section. Donald B. Black, formerly in charge of the fine chemicals section, has been transferred to the staff of the chemicals department sales manager, and will handle special projects.

Berkshire Gets Vice-Pres., Ceramic Div. Sales Mgr.

Joseph J. Swigart, general manager of Vitro Rare Metals Company, Canonsburg, Pa., a division of Vitro Corporation of America, has been named a vice-president of Berkshire Chemicals, Inc., New York, Vitro's chemical sales subsidiary.

Robert J. Weis, sales manager of Vitro Manufacturing Company, Pittsburgh, Pa., has been named sales manager of Berkshire's ceramics division.

The new posts were created following an announcement (OPD, 11/4/57) that Berkshire will take over all sales activities of Vitro Manufacturing. Messrs. Swigart and Weis will be transferred to a new Berkshire sales office at 511 Wood street, Pittsburgh.

Upjohn Company Develops New Corticosteroid Hormone

A new synthetic corticosteroid hormone with greater potency and with less tendency to produce undesirable side effects is now available to the medical profession, says Upjohn Company, Kalamazoo, Mich.

The steroid, known as Medrol, "represents a step forward in the intensive search for a more perfect anti-inflammatory agent and a significant clinical achievement since the increased potency of the new compound permits effective therapy at the lowest level of dosage possible with currently available corticosteroids," according to Dr. E. G. Upjohn, president of the company. A derivative of prednisolone, indications for the new steroid are the same as those for the parent compound.

Texas-U.S. Chemical Is Offering Technical Publication on Butadiene

Texas-U. S. Chemical Company, New York, has just published a fifty-two-page technical manual on butadiene.

The basic text was written for research chemists and others working on new products and processes. It is designed to encourage new chemical applications.

The manual contains specifications, physical and chemical properties, covers 150 chemical reactions, extensive indices on fields of end uses, reactants and reaction products and information on samples for experimentation. Its bibliography contains more than 300 references. It can be obtained by writing, on company or university letterhead, to Texas-U. S. Chemical Company, 260 Madison avenue, New York 16.

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Agricultural Chemicals

The market on the whole appeared dull last week with price shifts limited to a few items in the animal protein area of the market. The items, all of which softened in tone, were the Chicago listings of dried blood, tankage and hoofmeal. All three items were declined 25 cents per unit-ton. Fishmeal and fishscrap, in this same section of the market, appeared to develop a little strength as the result of hightened demand. Some little superphosphate was being tapped for use in Florida in the development of the seasonal market there; this slight demand also touched some areas of the pesticide market. A future hike in the price of dicalcium phosphate—to go into effect on January 1—has been announced. The shift will advance the material 20 cents per unit-ton or $4 per ton. A report on potash released recently by the American Potash Institute noted that agricultural purchases on the material during the first nine months of this year had been 2,576,304 tons or a five percent advance over purchases during the same period of the year previous. Other factors in this market also showed growth and development.

Price Trends

Advanced

None

Reduced

Blood, dried, Chicago, 25c. per unit-ton.
Tankage, Chicago, 25c. per unit-ton.
Hoofmeal, 25c. per unit-ton.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
112.24	112.27	110.73	107.22

For Current Prices See Page 9

Animal and Plant Foods

Anhydrous Ammonia — Production of this material during August, according to a report by the Bureau of Census, amounted to 294,507 short tons as compared with the July figure of 293,661 short tons and the August, 1956, tally of 242,584 short tons. Stocks at producing plants in August amounted to 73,740 short tons as compared with the July stocks figure of 60,765.

Ammonium Nitrate — Total production of original solution material, according to a recent government report, amounted to 217,878 short tons as compared with the 182,595 short tons produced during July and the 174,021 short tons produced during August of the year previous. Stocks at producing plants during August amounted to 137,205 short tons as compared with the 89,841 short tons on hand during the month previous.

Fertilizer grade ammonium nitrate produced during August amounted to 190,413 short tons as compared with the 161,363 short tons produced during August of 1956. Stocks on hand during August amounted to 128,469 short tons as compared with the 82,695 short tons on hand during July.

Ammonium Sulfate—Production of synthetic ammonium sulfate during August, according to a report by the Bureau of Census, amounted to 84,575 short tons as compared with the 80,717 short tons produced during July and the 81,576 short tons produced during August of the year previous. Stocks at producing plants in July amounted to 61,409 short tons as compared with the 38,181 short tons on hand in July.

Byproduct ammonium sulfate production during August amounted to 78,245 short tons as compared with the 79,587 short tons produced during July and the 63,072 short tons produced during August. Stocks at producing plants in August were tallied at 85,643 short tons as compared with the 74,508 short tons on hand in July.

Animal Proteins—At Chicago last week, blood, tankage and hoofmeal were reduced 25c. per unit ton. All three materials are now quoted there at 5.50 per unit ton. A major trade source attributed the price cut to a buying lull.

Elsewhere in the country, buying interest was off a bit but expected to show signs of improving by the end of the year. At the present time, buyers are restricting purchases to known needs, it was said.

A member of the trade remarked that inquiry for both fishmeal and fishscrap was better last week than it had been previously. Supplies were called ample. Fishmeal was moving at $132 per ton; fishscrap, at $127 per ton.

A department of the Interior report noted that a total of 40,740 tons of fishmeal and fishscrap was manufactured in the United States and Alaska during August of this year. This represented a decrease of 8,945 tons (eighteen percent) in the manufacture of meal and scrap. Imports of fishmeal into the United States during July of 1957 totaled 7,197 tons compared with 6,402 tons imported during July of the year previous. Production of meal and scrap during the first eight months of 1957 totaled 168,231 tons as compared with the 1956 tally for the same period of 202,110 tons. Total 1956 production amounted to 273,232 tons.

Dicalcium Phosphate—A major producer here last week confirmed earlier rumors that dicalcium phosphate dibasic will be hiked in price on January 1. The new listing, effecting 18½ percent and 21 percent feed grade material, will involve a 20c. per unit ton advance or a hike of about $4 per ton. The new listings for 18½ percent dicalcium phosphate on January 1 will be $83.25 per ton for carlot material and $88.25 per ton for less than carlots. For 21 percent material the new spot quotes will be $94.50 per ton for carlot quantities and $99.50 per ton for less than carlots.

Phosphate—Domestic as well as foreign demand was considered fair by some spokesmen for the trade. There was nothing new price-wise here but abroad Morrocan rock was reduced by a little more than one dollar and Tunisian rock was off 60c. to 80c. per long ton. Supplies all over were more than adequate.

Potash—A recent report by the American Potash Institute reported that potash shipments for agricultural purposes in the United States, Canada, Cuba, Puerto Rico and Hawaii from eight principal American producers, as well as importers, climbed to a 1,520,440 tons potassium oxide equivalent, a rise of some five percent. Continental United States took 1,426,424 tons K_2O, Canada, 49,516 tons; Puerto Rico, 14,600 tons and Hawaii, 19,715 tons.

These figures include imports of 79,971 tons K_2O for only the first five months of the year. Exports to other countries were 184,251 tons, an increase of 71 percent.

Deliveries of potash for non-agricultural purposes amounted to 91,742 tons K_2O, a decrease of four percent from last year's figure. Total deliveries for all purposes were 3,035,414 tons of salts, containing an equivalent of 1,796,433 tons K_2O, an increase of nine percent in salts and K_2O.

During the third quarter of 1957, deliveries for agricultural purposes were 315,191 tons K_2O, in the continental United States, 9,228 tons in Canada, 1,330 tons in Cuba, 304 tons in Puerto Rico, and 7,275 tons in Hawaii, making a total of 333,328 tons K_2O, an increase of nearly two percent over last year.

Exports of potash to other countries during the third quarter were 50,799 tons K_2O, an increase of 770 tons over last year. Deliveries of potash for non-agricultural purposes were 30,644 tons K_2O, an increase of nearly nine percent over last year. Total deliveries for the third quarter were 698,047 tons of salts containing an equivalent of 414,769 tons K_2O, an increase of over two percent over last year.

Superphosphate—Supplies for the most part were said to be plentiful. However, the trade noted some tightening up in the triple superphosphate market where supplies could not be regarded as free. On the international scene, surpluses were not quite as apparent as they were domestically, it was mentioned.

Pesticides

Production of pesticides has been stepped up slightly, one source here noted, as contractual and demands from formulators rose in anticipation of the next seasonal period. This movement, of course, is purely in keeping with the seasonal picture and contains no unanticipated variation. On the whole, the DDT picture continued a highly competitive one as did a number of the other items with stockpiles. Some overseas demand, coupled with some slight immediate take-off because of the Florida agricultural season, has helped somewhat, though the impression upon the overall market is slight.

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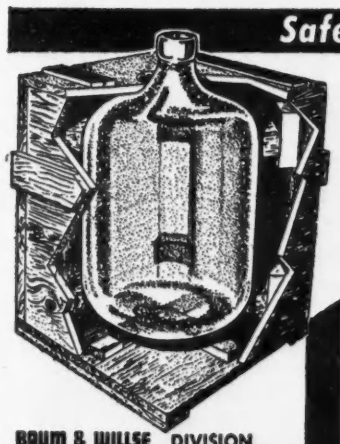

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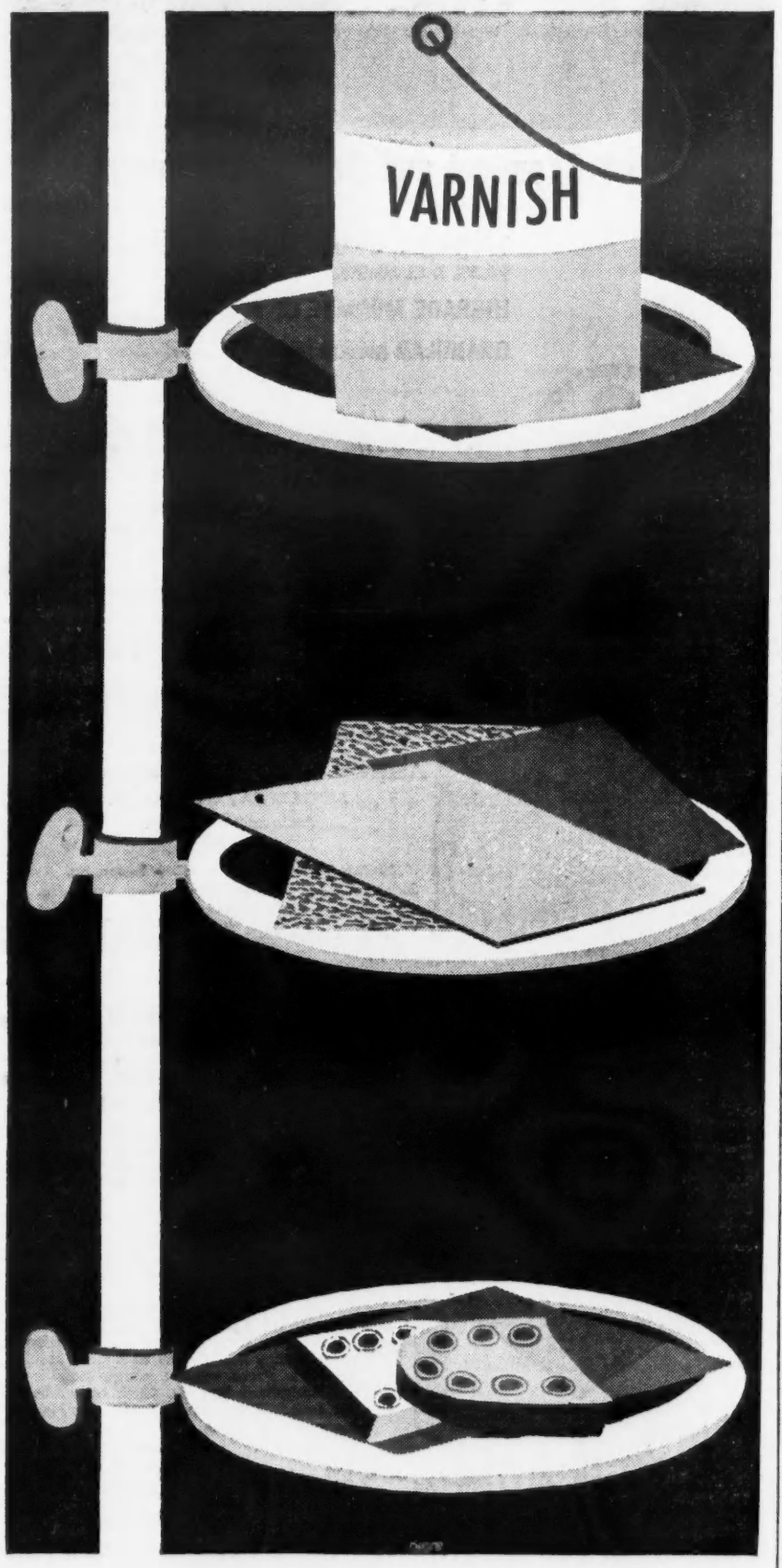

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Coal Chemicals

Sources felt that price structure on aromatic chemicals should hold firm for the balance of the quarter although in some areas, toward the end of the year, there could be some downward revision. However, it was felt that such a move would not contribute materially to the sale of an additional pound or gallon for anyone. Producers were holding good inventories and most items were freely available from coaltar producers.

Sources reported they were going along with the decline on technical benzoic acid. The reduction, initiated two weeks ago by a major producer, amounted to 5 cents per pound in carload and truckload quantities. Other changes made at the same time included USP benzoic acid as well as sodium benzoate, USP.

One report from a maker of natural phenol was to the effect that more phenol was being moved than has been the case for many weeks. Other sources continued to report listless activity. The added business was felt to have been the result of a more intensive selling program. It was a case of old customers taking more than their usual amount of phenol and not of a substantial increase in new business. Likewise, the ¼ cent per pound increase of USP phenol, effective October 1, was felt to have had no bearing on the upsurge in demand. Conflicting reports also were received on cresols and cresylic acid. Most were agreed however that it was no longer a matter of surpassing last year's sales levels but rather one of maintaining those levels.

American Iron and Steel Institute estimated that steel production in the week ended November 10 would amount to 78.7 percent of theoretical capacity equivalent to 2,015,000 net tons of steel. Output of steel was 2,041,000 net tons in the week previous, 2,105,000 in the comparable week one month ago and 2,463,000 tons in the corresponding week one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
118.19	118.119	118.19	115.56

For Current Prices See Page 9

Basic Products

Benzene—Producers have continued to move material in good volume, but inventories appeared to be growing. Sources contacted were of the opinion that price structure should remain firm for the balance of the quarter. Steel production in recent weeks has been in the high seventies and it was reported would probably stay there for the rest of 1957. Added capacity from petroleum sources together with year long operation of cokeovens was felt to have been a large factor in the ready availability of the light oils. An added influence was the slowing of the economy generally which has become increasingly evident during the current year.

Cresols—There have been mixed reports in this market for several weeks. Some sources were satisfied with sales reports for the month of October and felt that a good increase had been shown over September, which was accounted a poor month. Other major producers felt that volume for ortho and two and three degree cresols has proven disappointing this year and were prepared for trading to drag along at its present pace with a possible slight decrease at the close of the year as consumers work off inventories. Most were agreed though, that it was not a question of surpassing last year's level but rather one of maintaining that level.

Cresylic Acid—There was disagreement among major sources as to the current market situation. Some felt that October's total sales had shown a good increase over the previous month and looked for the trend to continue. However, other sources were not so optimistic. Both were agreed that tricresyl phosphate cresylic acid sales have suffered a great deal this year. One opinion was that the use by petroleum makers of xylene and toluene in high octane fuels has cut into sales of TCP grades of cresylic acid considerably. Import sources said that cresylic acid sales were off slightly but not significantly in comparison to last year. Production of refined cresylic acid from all sources is approximately eight million gallons less for the first eight months of 1957 than it was for the comparable period last year. Imports of cresols and cresylic acid ADF are off 1.2 million gallons for the eight months period this year from last year.

Naphthalene—Some tar distillers felt that recent developments in the steel industry might work to advantage in this

Aromatic Chemicals Output: August

Following are statistics based on data compiled by the Tariff Commission relating to production of certain aromatic chemicals during August of this year and the year previous, with aggregate figures covering the first two months of this year and last. Figures representing cokeoven production of benzene, toluene and xylene are those previously published with other figures reported by the Bureau of Mines. Where no figure is given, it is because available data would have disclosed confidential information or because the data on hand were believed to be incomplete. Dyes are identified by color index or prototype number.

		August 1957	*August* 1956	*First Eight Months* 1957	*First Eight Months* 1956
Acetanilide, tech. and USP	lbs.	0	114,800	**	**
Aniline	lbs.	6,669,676	7,284,521	67,617,141	84,184,898
Benzene, tar distillers	gals.	2,887,849	2,799,775	23,956,648	19,403,619
Cokeoven operators	gals.	14,330,517	12,624,974	123,079,563	112,514,739
Total from coal sources	gals.	17,218,366	15,424,749	147,066,212	131,918,358
Petroleum operators	gals.	9,834,904	8,796,137	76,871,729	72,560,375
Total from all sources	gals.	27,053,270	24,220,886	223,908,946	204,478,733
* Creosote oil (100 percent creosote basis)—					
Content in solution	gals.	1,502,895	**	11,742,281	**
Straight distillate	gals.	9,391,973	**	66,121,610	**
Total	gals.	10,894,270	**	77,863,302	**
Cresols, meta-para	lbs.	1,353,106	932,310	11,566,681	9,837,391
Ortho-meta-para	lbs.	817,117	**	8,974,804	**
Cresylic Acid, refined, all sources	lbs.	3,812,357	4,742,758	31,323,819	38,991,410
Dyes, C. I. 202, chrome blue black R	lbs.	161,829	66,226	807,166	**
C. I. 581, direct black EW	lbs.	311,326	327,153	2,783,561	2,785,049
p-302, naphthol AS	lbs.	78,662	42,557	397,783	**
Monochlorobenzene	lbs.	27,358,104	31,624,489	251,416,674	302,536,308
*Naphthalene, crude	lbs.	33,050,781	33,865,543	277,662,201	259,044,221
Refined	lbs.	6,513,968	6,062,793	48,843,004	54,574,774
Phenol, tech. and USP, all sources	lbs.	37,154,284	33,011,194	361,545,680	341,001,914
Phthalic Anhydride	lbs.	24,240,130	24,142,752	220,567,316	215,020,120
Styrene monomer, from all plants	lbs.	96,480,807	90,882,026	751,174,606	720,169,488
Toluene, cokeoven operators	gals.	3,432,948	2,601,060	26,343,121	24,799,153
From other sources	gals.	11,929,676	9,593,610	117,102,120	92,970,733
Total from all sources	gals.	15,352,624	12,194,670	136,435,187	113,228,457
Xylene, from all sources	gals.	11,036,085	9,992,503	92,286,175	82,830,951

* Total output of cokeoven operators and distillers.
** Data incomplete.

Coal Chemicals

market. Due to a recycling of cokeovens, material received by tar distillers was said to contain less naphthalene and thus might prove a factor in reducing inventories. However other sources were quick to point out that this apparent advantage was misleading. The latent supplies overhanging the market, creosote oils from which the naphthalene has not been separated, number in the millions of gallons. Should there be even a slight improvement in the naphthalene inventory picture and these oils would be diverted to the making of more naphthalene with the result that stocks would build right back up again. Short term prospects are poor.

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ending November 10, was as follows:

Ammonia liquor	lbs.	783,841
Ammonium sulfate	lbs.	33,376,464
Benzene	gals.	2,983,653
Coaltar	gals.	14,665,416
Creosote	gals.	568,917
Naphthalene, crude	lbs.	3,173,292
Pyridine (2°C)	lbs.	11,387
Toluene	gals.	657,415
Xylene	gals.	189,639

Phenol—In the natural phenol market, the disparity between reports from major producers was even greater than in cresols and cresylic acid. Some reports continued that phenol has not taken hold and trading is currently dull and listless. Other sources reported moving more natural phenol in recent weeks than has been the case for quite some time. Observers were at a loss to account for the added business. It was felt that no new business had been acquired and that it was simply a matter of old customers taking more phenol than was expected. The increased volume bears no relation to the October first ¼c. per pound advance on USP phenol, it was said. In the last analysis, only the more intensive selling program on natural phenol could account for the increase.

Pyridine—Domestic price structure has become very firm. In many cases, it was said, import material is being bought and upgraded. The current market situation was felt to have come about partially as a result of what trade sources termed "a good drug year." The comeback for antihistamines, the booming market in tranquilizers and continued use of other drug products which use pyridine as a raw material was felt to have contributed to an improvement in the pyridine market. In other quarters, domestic sources reported no improvement in what to them has been a dismal outlook. Price remained unchanged. Stocks were readily available.

Toluene — Production from cokeoven and petroleum sources for the first eight months of the year was approximately 23 million gallons more than in the comparable period last year. Exports continue to climb and producers inventories have been burdensome for many months. Trade observers could see no change in the situation for some time to come. Price was 29½c. per gallon at major shipping points.

Xylene—Trade sources were agreed that xylene along with the rest of the light oils has become increasingly free during the current year. Production has been maintained at last year's high levels with approximately 10 million more gallons being turned out from cokeoven and petroleum sources in the first eight months of this year than in the comparable period last year. The continued use of xylene in high octane fuels has lessened the load on petroleum makers somewhat but stocks are growing. Cokeoven sources report that this use of xylene and toluene in high octane fuels by petroleum people has had a damping effect on tricresyl phosphate grades of cresylic acid. Sales of the latter material remain quite poor. Xylene imports were 30,000 pounds less this year for the first eight months than was the case in the like period last year. Cokeoven prices on xylene were unchanged.

Intermediates

Benzoic Acid—Both technical and USP material were reduced in price two weeks ago by a major producer. Trade sources indicated that they would go along with the reductions. Technical material in carload or truckload quantities, 200 pound fiber drums inclusive, was priced at 37c. per pound while 2,000 pound lots, same packing, were 41c. and 1,000 pound lots were 43c. per pound.

USP material in 2,000 pound lots, 100 pound fiber drums inclusive, listed at 48c. per pound while in 1,000 pound lots, same packing, the price was 50c. per pound. Prices are quoted on single shipment, freight allowed.

Monochlorobenzene — Price was unchanged at the levels established October 1 when this material was advanced ¼c. per pound in bulk and ½c. per pound in less than tankcar quantities. Use of this material in the manufacture of DDT continues to lag. Government buying has also fallen off this year. Production of monochlorobenzene is approximately fifty million pounds less for the first eight months of this year than in the like period last year.

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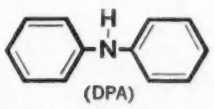

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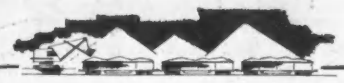

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Form	low-melting crystalline solid
Odor	phenolic and not sulfurous

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Tolerance Okay Asked By duPont for Pesticide

E. I. duPont de Nemours & Co., Wilmington, Del., has filed a petition with the Food and Drug Administration for a tolerance of two parts per million for residues of the chemical pesticide diuron in or on bird's-foot trefoil (hay, forage).

FDA also announced that it has given tentative approval to tolerances for residues of malathion on an extensive list of fruits and vegetables, and in meat from cattle, hogs and poultry. A proposal for a tolerance for malathion in milk was withdrawn by the applicant. A zero tolerance for residues of the chemical in eggs was established when data showed that no residues of malathion occur in eggs when the chemical is applied according to directions.

California Spray-Chemical Corporation and Stauffer Chemical Company filed a petition proposing a tolerance of forty parts per million for residues of captan from postharvest application on a long list of fruits and vegetables. The petition also proposed an exemption from the requirement of tolerances for residues of the chemical from preharvest application to a long list of raw agricultural products.

N.J. Zinc Co. Executive Retires From Technical Job

Bruce R. Silver, technical assistant to the vice-president of New Jersey Zinc Company, New York, retired November 1 after more than thirty-five years with the company.

Mr. Silver joined New Jersey Zinc as a sales engineer in 1922 and then became successively district sales manager, manager of technical service and finally, in 1953, technical assistant to the vice-president.

Obituaries

Dr. Ernst Schwarz

Dr. Ernst Schwarz, former president of Agfa Ansco Corporation, New York, died November 1 in that city. He was seventy-three years old.

Dr. Schwarz served as president of the company from 1934 to 1939. After Agfa's merger with General Aniline & Film Corporation he continued as president of Agfa Ansco division, and vice-president of GAF.

Alfred C. Stepan

Alfred C. Stepan, former district manager of the Elchem division of E. I. duont de Nemours & Co., Wilmington, Del., died October 22 in Fort Lauderdale, Fla. He was seventy-six years old.

Mr. Stepan entered the chemical business at the age of thirteen, as office boy for Roessler & Hasslacher Chemical Company in New York.

Gustave Bertrand, retired vice-president and director of Johnson & Johnson, Inc., New Brunswick, N. J., died October 31. He was sixty-nine years old.

Frank H. Hall, a vice-president and former director of Corn Products Refining Company, New York, died November 2 in Englewood, N. J. He was eighty-seven years old.

Dr. Arno B. Luckhardt, former chairman of the department of physiology at the University of Chicago and discoverer of the anesthetic, ethylene, died November 6, in Miami Beach, Fla. He was seventy-two years old.

Dr. Edward Lyons, former acting associate professor of chemistry at the University of Florida and a research chemist with Parke-Davis & Co., Detroit, Mich., for twenty-five years, died November 5, in Holly Hill, Fla. He was sixty-seven years old.

Olin Expansion

—*Continued from page 3*

common stock of the corporation from 15 million to 20 million.

It was also announced at the meeting that John M. Olin, who has reached the voluntary retirement age of sixty-five, has been asked to continue as chairman of the executive committee and of the financial and operating policy committee. Mr. Olin agreed to do so.

Olin's report on the third quarter showed that sales rose 2 percent over the corresponding period of last year, to $158,875,993, while net operating profit equaled 67 cents per share, as opposed to 74 cents per share in the like period of last year.

In their report to stockholders, Thomas S. Nichols, chairman, and Stanley de J. Osborne, president, attributed the improved sales performance, in part, to the corporation's increased capacity for cellophane, chlor-alkali products and aluminum fabrications and to the continued high rate of operations maintained this year by the E. R. Squibb & Sons Division.

The report noted that sales of other packaging products, plant foods and phosphate chemicals improved this September compared with a year ago.

GE Comes Up With New Heat-Resistant Coating

The commerical development of what is claimed to be industry's first class F insulating varnish has been announced by General Electric Company, Schenectady, N.Y. It is designed to meet high temperature requirements (155 degrees Centigrade) at low cost.

General Electric said the new varnish was engineered to principles behind development of "Alkanex" thin-film wire enamel.

Providing up to twice the heat resistance of competitively-priced materials, the class F varnish is said to permit designers to take full advantage of the high thermal resistance of "Alkanex" wire enamels.

Aerosol Opportunities

—*Continued from page 5*

said they used one or more chemical products in caring for the animals.

"People have more money to spend and are spending more on their pets," the survey report concluded, "and providing for the nation's pets is a sizable market with good potential for growth."

Among a dozen or so pet care products commonly available, flea powder was the most universally used, with 35 percent of the interviewees reporting purchase of anti-scratch remedies for use on their pets. Another 15 percent said they bought unspecified powders for application to their dogs and cats, 11 percent used a flea soap, and 6 percent had purchased dry shampoo preparations.

Only 12 percent of the householders interviewed said they had heard of pet preparations in self-spraying aerosol containers, but 71 percent of those had tried them. Among the latter, the aerosols were preferred, 11 to 1, over the next most favored form of application. Ease of use, effectiveness, lack of mess in application, and economy were mentioned in that order as reasons for consumer preference for aerosols.

As to the 88 percent of householders who had never heard of pet preparations in aerosol form, duPont's market analysts observed "there appears to be no significant resistance to the purchase of aerosols except inertia which could be overcome readily by selling prospects on the positive advantages of the aerosol products."

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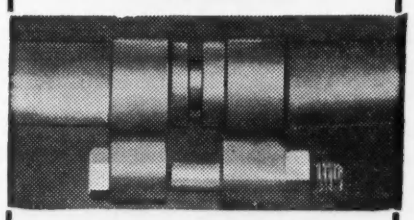

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Textile, Leather Chemicals

Trading was centered in potato starch and Siamese tapioca flour last week. Large users placed contracts for large quantities of these materials for requirements next year. Demand for most textile and leather chemicals continued limited to prompt needs. Tone of the market remained steady at prevailing quotations. Chemicals moved in good volume against current contracts, with new buying confined to actual needs. Corn starch and dextrin were in fair request for immediate delivery. Egg derivatives were steadier. Flake was up 1 cent, while yolk was boosted 6 cents per pound as a result of increased production cost. Tanning materials were quiet and quotably unchanged.

Shoe production in September was indicated at 48,949,000 pairs, 8.8 percent higher than September, 1956, and 1.4 percent gain for the first nine months this year compared with the same period last year, it was reported by the Census Bureau. Women's shoes, which accounted for almost 43 percent of the September production, registered 1 percent increase over September last year. About 82 percent of the September production had all leather uppers compared with 82.6 percent a year ago. Shoes with all and part leather uppers showed a very slight gain from September, 1956, increasing to 86 percent from 85.8 percent. The proportion of shoes with leather soles in September was 35 percent as compared to 35.5 percent in September, 1956. The factory value per pair of shoes shipped in September averaged $3.61, a 4 cents decline from the year ago value of $3.65.

Weekly average rate of fiber consumption on the woolen and worsted systems in September was 6 percent below August and 2 percent under September, 1956, according to the Census Bureau and weekly average raw wool consumption during September was 7.104 million pounds (scoured basis), or 3 percent below August, and 10 percent below September, 1956. Consumption of apparel class wool was 4 percent below August and 9 percent below September of last year.

Price Trends

Advanced

Egg albumin, flake, 1c. per lb. yolk, 6c. per lb.

Reduced

None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
103.55	103.54	103.54	108.55

For Current Prices See Page 9

Chemicals

Bichromates—Production of bicromates in August totaled 8,166 tons against 6,286 tons in July and 10,344 tons, August 1956. Stocks at producing plants in August amounted to 7,801 tons and 9,310 tons in July. Trading was light chiefly for prompt needs. Deliveries against standing contracts moved in good volume. Prices were unchanged and well held.

Sodium Acetate—Trading was confined to actual needs. Quotations were maintained at prevailing levels.

Sodium Hydrosulfite — Consumers limited purchases to prompt delivery. Prices were unchanged and steady. Production in August totaled 1,695 tons, compared with 1,258 tons in July and 2,094 tons, August last year. Stocks at producing plants amounted to 1,593 tons in August and 2,021 tons in July.

Sulfonated Oils—Demand continued restricted to actual needs. All varieties were quotably unchanged.

Sizing Materials

Albumin Egg—Fair demand was reported chiefly for immediate delivery. Prices were steady and advanced 1 cent. Flake ranged from $1.27 to $1.29 per pound, and powder, $1.31 to $1.33 spot depending upon quantity. Technical was maintained at $1.03 to $1.08 per pound, as to seller.

Liquid egg production during September totaled 15,408,000 pounds, compared with 13,513,000 pounds in September 1956 and the 1951-55 September average of 9,097,000 pounds. The quantities used for immediate consumption, solids production and freezing were larger than in September last year. Egg solids output during September amounted to 1,350,000 pounds, compared with 1,315,000 pounds in September last year and the average of 1,042,000 pounds. Production consisted of 442,000 pounds of whole egg solids, 496,000 pounds of albumen solids, and 412,000 pounds of yolk solids. Production during September 1956 consisted of 1,204,000 pounds of dried whole egg, 422,000 pounds of albumen solids, and 684,000 pounds of yolk solids. Frozen egg production during September totaled 9,733,000 pounds, compared with 8,106,000 pounds in September 1956 and the average of 6,938,000 pounds. Frozen egg stocks decreased 17 million pounds during September, compared with 16 million pounds in September 1956 and the average decrease of 23 million pounds.

Corn Starch—Fair volume of business was indicated for immediate delivery. Prices were steady. Pearl was quoted at $7.36 per 100 pounds, paper bags, carlots, New York, and powder, $7.48, same basis. Smaller lots were 15c. higher. Visible corn supply was reduced 1,078,000 bushels to 91,520,000 bushels for the week ended November 1, compared with 57,281,000 bushels for the same time last year, according to the Chicago Board of Trade.

Egg Yolk—This market was sharply higher. Consumers continued to absorb fair sized lots for prompt needs. Stocks on spot were lifted to $1.23 to $1.25 per pound, as to quantity. Yolk production in September amounted to 412,000 pounds against 689,000 pounds, September last year.

Potato Starch — While consuming demand continued fair for actual requirements, large users were reported to have placed contracts for about 40 carlots for delivery during 1958. This kept the market steady. Carlots were quoted at 6¼c. per pound, f.o.b. mills Maine, less ¼c. for shipment below the Mason Dixon line. Idaho remained unchanged and steady at 6½c., carlots, mills, with no discount. The spot market was unchanged at 8¼c. to 9¼c., exwarehouse, as to quantity.

Tapioca Flour—Trading in Siamese flour for future delivery was active and contracts were booked for delivery during the first half of next year. Local demand was confined to actual needs. Prices were without change. Medium grade ranged from 5.55c. to 5.65c. per pound, carlots, exdock and A grade at 6.05c. to 6.10c., prompt shipment. Brazilian flour was quiet, with arrivals readily taken against recent orders. Shipments were nominal at 9½c., carlots, exdock.

Tanning Materials

Chestnut Extract—Tanners limited purchases to nearby shipment. Replacements were maintained at former levels. Solid extract, 60 percent tannin was offered at 8½c. per pound, exdock, prompt shipment, and 68 percent, 9.59c., same basis.

Cutch — This market was quiet, but steady. Prompt shipment was held at 7½c. per pound, exdock.

Mangrove Bark—Trading was confined to fill-in needs. Shipments were quotably unchanged. African bark was quoted at $63 to $64 per ton, exdock, prompt shipment; Columbian, $55 per ton, and Ecuadorian, $52 same basis.

Myrobalans—While trading was slow, primary market remained unchanged and steady. Genuine J1's were quoted at $60 to $62 per ton, exdock, for prompt shipment; crushed J1's, at $75 to $76, and Bombay, at $55 to $56, same basis.

Quebracho Extract—Buying interest was limited to nearby shipment. Offerings were maintained at former levels. Solid clarified was held at 10.7429c. per pound, and ordinary at 9.8035c. per pound, carlots, exdock, for prompt shipment.

Wattle—Consuming inquiry was reported light. Sales were limited to an occasional lot for fill-in needs. Prices were without change. Fair average bark was quoted at $82 per ton, exdock, for prompt shipment, and merchantable, $77 per ton, same basis. East African extract, 60 percent, was held at 8.275c. per pound, exdock and South African extract at 8.4c. per pound, same basis.

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Increasing interest among MDs

The value of pyridoxine is receiving increased attention from physicians. The symposium on "Newer Vitamins" held under the auspices of the National Vitamin Foundation at Vanderbilt University summarized research work and pointed the way to new fields of investigation. As a result, doctors and diet experts are giving more study to the importance of the vitamin to health and nutrition.

Metabolic imbalance in pregnancy

Pyridoxine's particular place in the metabolism of tryptophane and other amino acids may be significant in correcting certain metabolic imbalances known to exist in some pregnancies.

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Drugs, Fine Chemicals

Makers of medicinal salicylates continued to move material in good volume last week. Aspirin withdrawals were especially heavy with some producers reporting slight delays in filling orders. There was no great amount of new business; it was more a matter of old customers taking increased amounts. The normal seasonal upturn which normally begins in earnest at this time of year was coupled with increased demand as a result of the widespread influenza outbreak. Export demand for aspirin as well as ascorbic acid was up since it appeared that medical treatment for influenza in Europe and Asia relies heavily on large doses of aspirin and Vitamin C. In the latter market, domestic sources were uncertain as to the long range effects on import volume of the $2 per kilo drop in ascorbic acid in late September. Since the price reduction little or no ascorbic acid has been imported. It was pointed out however, that this may be due to the fact that overseas production facilities have been crippled by absenteeism and the available supplies of ascorbic are being retained at the source for treatment of flu victims.

A stiff competitive battle was becoming even more so as producers jockeyed for business in the overcrowded niacin field. There has been no change in published price schedules, but niacin prices were said to have gone very weak and in the feed industry were reported virtually nominal. The other major vitamins continued to move in good volume. No price shifts were noted.

Antibiotics continued to share in the increased demands which have been in evidence in the medicinal salicylates in recent weeks. Stocks were in balance. No price revisions were in the offing, it was said. Reserpine price had softened somewhat last week. Reports indicated the $1.50 per gram level could be shaded.

The trade indicated that it would go along with the changes in benzoic acid and sodium benzoate instituted two weeks ago by a major producer. The changes amounted to a 3½ cents per pound decline for carload and truckload lots of USP sodium benzoate while in 1,000 pound lots, the reduction on USP benzoic acid amounted to 4 cents per pound. No change was indicated for technical sodium benzoate.

An announced Jaunary 1 price advance on feed grade dicalcium phosphate has not led to any revision in schedules for food grade USP material. Sources contacted last week indicated that a change on food grade material might not be forthcoming in view of the fact that the two grades are so widely separated in use and quality.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
63.22	63.22	63.22	65.22

For Current Prices See Page 9

Acetanilide—Needs remain routine. The market continued dull and featureless with little to indicate that a substantial change in the listless action of the past few months would be effected. Price for both technical and USP material was unchanged from those levels which have been established in the trade for many months. Stocks were fully adequate and moving to established outlets for industrial and pharmaceutical uses.

Ammonium Carbonate—USP material, lump or powder, listed at 15½c. per pound in a carload of 375 pound drums. Less carload price, same packing, was 16½c. per pound. Stocks were adequate for trade need. Demand was routine.

Ascorbic Acid—There has been little or no ascorbic acid imported since the $2 per kilo reduction on ascorbic acid in late September. However, domestic sources were loath to say that the reduction had put a permanent crimp in import volume. It was pointed out that current overseas production of ascorbic has been crippled as a result of absenteeism brought on by the widespread flu outbreak. Also medical treatment for the flu in Europe and Asia was said to lean heavily on large doses of ascorbic acid and aspirin. Under these unusual conditions, the dearth of ascorbic imports and the good upturn in export demand for ascorbic and aspirin would be explained. Producers here were adopting a wait and see attitude in regard to long range effects of the domestic price reduction on import volume of ascorbic acid.

Aspirin — Producers continue to face heavy demands from the pharmaceutical industry. Bulk material was moving in very heavy volume and some producers reported slight delays in shipment. Producing capacity was adequate and in most cases it was just a matter of filling orders as they came in. Export demand was said to have shown a good increase as treatment for Asian flu in Europe and the East was said to lean heavily on large doses of aspirin and vitamin C. Exports of bulk aspirin in August jumped to 140,698 pounds from 88,380 in the previous month.

Benzoic Acid—Industry sources indicated that they would go along with the reductions on USP and technical material instituted by a major producer two weeks ago. Under new schedules, USP material, 100 pounds drums inclusive, was priced at 48c. per pound in 2,000 pound lots. The price in 1,000 pound lots is 50c. per pound. On technical benzoic acid, the carload or truckload in 200 pound drums price is 37c. per pound while 2,000 pound lots list at 41c. and 1,000 pound lots, 45c. per pound. Prices are quoted for single shipment, freight allowed.

Narcotics—Material continued to move in good seasonal volume. The influenza outbreak had given no such impetus to these markets as has been noticed in some of the other drug markets. Producers carried comfortable inventories and most commonly used narcotics were in good supply for prompt shipment.

Niacin—Production for the first eight months of the year outstripped the comparable period last year by about 100,000 pounds according to Tariff Commission report. Potential capacity is considered more than enough for current and long term needs. A stiff competitive battle was becoming even more so as producers jockeyed for business in a crowded field. There has been no change in published price schedules but trade sources indicated that prices had gone very weak and the end had not been reached. Especially in the feed field, makers stated, prices were practically nominal.

Silver Nitrate—Census bureau reports show that 5,590 ounces of silver nitrate were produced in August as against 4,838 ounces in July; the latter a revised figure from the 5,118 ounces previously reported as output for July. Production in August of last year was 6,256 ounces, according to the report. End of month stocks at producing plants in August totaled 3,606 ounces as compared to 2,946 ounces in July. The latter is a revised figure from the 3,564 ounces previously reported as July end of month stocks.

Sodium Benzoate—Producers were going along with the reductions in sodium benzoate instituted by a major producer two weeks ago. Under new schedules, USP material in 100 pound fiber drums, drums inclusive, is listed at 38c. per pound in carload and truckload quantities. In 2,000 pound lots, the price is 43c. and 45c. per pound in 1,000 pound lots.

Botanicals

New crop juniper berries has weakened price schedules somewhat. Dealers here quoted price of 15 cents per pound last week. On the other hand, dealers were awaiting new crop material on lavender leaves and select was firmer being listed at $1.10 per pound. Stocks of both items appeared adequate for consumer requirements. Demand on the general line of imported botanical drugs was spotty. The crude drugs market thus far this year has been char-

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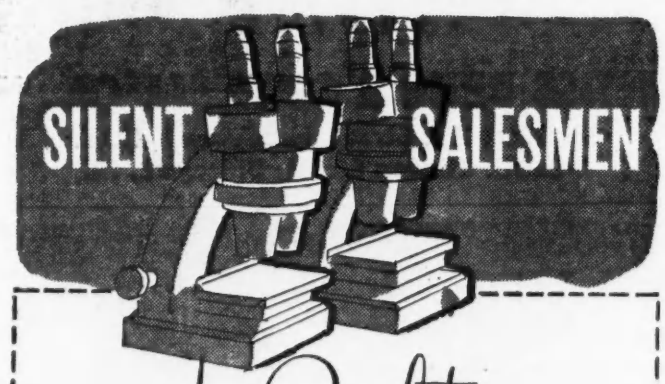

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Drugs, Fine Chemicals

acterized by fits and starts with surge demands developing on some small volume items such as lycopodium while large volume items like papain and ipecac root have suffered as a result of high prices and retentions of shipments by authorities here. It was again pointed out that volume of crude drugs to the pharmaceutical industry has been disappointing in view of the current heavy demands for medicinals to be used in cold and cough formulations. In what has been termed by other sources "a good drug year," volume of sales of crude botanicals leaves something to be desired, it was said.

Juniper Berries—New crop material currently being received has softened price structure somewhat. Dealers here quoted juniper berries at 15c. per pound. Stocks were adequate for the current modest requirements of the trade.

Lavender Flowers—Price structure was substantially unchanged from last report. Lavender flowers, medium, listed at 75c.-80c. per pound while ordinary was 25c.-40c. and select was somewhat firmer at $1.10. Dealers were awaiting new crop material. The market was quiet, consumer activity limited.

Licorice Root — Price on granular ranged from 15c.-17c. per pound while powder was 12c.-15c. and whole was 10c.-12c. per pound. Demand was spotty. Stocks in dealers hands appeared adequate to cover the current consumer requirements.

Linden Flowers—Price was quoted at 25c. per pound for linden flowers with leaves and 30c. per pound without leaves. Stocks were entirely adequate for the modest calls being made. Sources anticipated no substantial change in market conditions for some time.

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ivaudan, Affiliates Prepare o Move Into New Offices

Givaudan Corporation and its associate mpanies, Givaudan-Delawanna, Inc., vaudan Flavors, Inc., and Sindar Corration, are preparing new executive and es offices for occupancy in the spring, R. Durrer, president, has announced. e company has just concluded a longm agreement, leasing the seventh and a rtion of the eight floor in the Warner others Building, 321 West 44th street, w York.

A sizable increase in space will be avail-le at the new location allowing for ger perfume, cosmetic and flavor laboraries. The actual relocation date has en tentatively scheduled for late April.

ow Is Suing Frontier ver Patent for Fumigant

Dow Chemical Company, Midland, ich., has filed suit against Frontier hemical Company, Wichita, Kan., a divion of Union Chemical & Materials Corration, alleging patent infringement.

The suit involves a patent held by Dow vering grain fumigant mixtures of hylene dibromide in carbon tetrachlode. The suit was filed in United States ederal District Court at Wichita.

angdon Agency Set Up

An agency for public relations programs d public opinion studies has been started Audrey Langdon at 6 east 39th setreet, ew York. Formerly on the staff of the olgate-Palmolive Company, Miss Langn was in charge of the public relations tivities of the research & development epartment.

yanamid Unit Appoints

A. J. Weith, jr., has been appointed mmercial development manager for the ganic Chemicals division of American yanamid Company, New York.

Data Offered

Frank B. Ross Company, 6-10 Ash street, Jersey City 4, N. J., is offering upon request a chart showing **price fluctuations in No. 3 north country carnauba wax** from 1926 to 1956.

Its new activated hydrogen **peroxide bleaching process for cotton** is described in a comprehensive new technical booklet being offered by Solvay Process Division of Allied Chemical & Dye Corporation, 61 Broadway, New York 6, N. Y.

A new four-page bulletin on **propionic acid** (F-40,161A) has been released by Union Carbide Chemicals Company, division of Union Carbide Corporation, 30 East 42nd street, New York 17. The bulletin includes data on the acid's physical properties, specifications, shipping data and applications.

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188 bgs, Colonial Trust Co, Tampico
313 bgs, Tampico
CARAWAY OIL—5 dms, Fritzsche Bros, Rotterdam
CARNAUBA WAX—125 bgs, National City Bank, Fortaleza
167 bgs, Cornelius Wax Refining, Fortaleza
111 bgs, River Plate Corp, Fortaleza
333 bgs, River Plate Corp, Fortaleza
56 bgs, Biddle Sawyer Corp, Fortaleza
56 bgs, Smith & Nichols, Fortaleza
427 bgs, Bahia Ceras Products, Salvador
CASEIN—200 bgs, Chase Manhattan Bank, Buenos Aires
1,000 bgs, Tupman Thurlow, Buenos Aires
500 bgs, Eugenio Lang, Buenos Aires
200 bgs, Merchants Bank, Rijeka
500 bgs, Buenos Aires
CASHEWNUT SHELL LIQUID—41 dms, Irvington Chemical Division, Lourenco Marques
CASSIA—320 bls, Jacoberg Overseas Inc, Bremen
2,826 bls, Rotterdam
CASTOR BEANS—3,827 bgs, Hollander Trading Corp, Port Au Prince
1,667 bgs, Bahia Ceras Products, Salvador
13,902 bgs, Baker Castor Oil Co, Salvador
CASTOR OIL—325 tons, Wallace & Tiernan Inc, Fortaleza
300 tons, Brazilian Oiticica Inc, Fortaleza
304 tons, Spencer Kellogg, Rotterdam
CETYL ALCOHOL—112 bgs, Orbis Products Corp, Liverpool
CINNAMONLEAF OIL—4 dms, Volkart Bros, Colombo
CITRONELLA OIL—23 dms, United Global Corp, Hong Kong
13 dms, Lo Curto & Funk, Hong Kong
4 dms, S B Penick & Co, Puerto Cortes
10 dms, P H Petry, Hong Kong
25 dms, George Uhe Co, Hong Kong
20 dms, Federal United Corp, Hong Kong
10 dms, Centflor Manufacturing Co, Hong Kong
95 dms, Hong Kong
CLOVE—200 bgs, A G Dunn, Tamatave
100 bgs, G M Fakra, Tamatave
100 bgs, Delano Corp of America, Tamatave
200 bgs, S B Penick & Co, Tamatave
100 bgs, W L Willner, Antalaha
425 bgs, Tamatave
CLOVELEAF OIL—32 dms, L A Champon & Co, Tamatave
9 dms, George Uhe Co, Tamatave
18 dms, Tamatave
COALTAR DYES—12 dms, Orlez Dyes & Chemical Corp, Rotterdam
76 dms, Hensel Bruckmann & Lorbacher, Rotterdam
1 dm, Hensel Bruckmann & Lorbacher, Hamburg
COCONUT OIL—1,200 tons, American Trust Co, Cebu
1,047 tons, Manila
CODLIVER OIL—15 dms, Arista Oil Products Co, Reykjavik
170 tons, Dyson Shipping Co, Reykjavik
790 dms, Arista Oil Products Co, Aalesund
COPAL GUM—417 bgs, Archer Daniels Midland Co, Matadi
COPPER DUST—6 cs, Kassel Export, Bremen
COPPER SUBOXIDE, RED—7 dms, Bassett Smith Inc, Glasgow
CREAM OF TARTAR—80 bgs, Nylos Trading Co, Genoa
CRESYLIC ACID—216 dms, H A Gogarty, Liverpool
CUBE POWDER—209 bgs, Foreign Domestic Distributors, Callao
22 bgs, Canadian National Bank, Callao
CUBE ROOT—217 bgs, Foreign Domestic Distributors, Callao
CURARE—7 dms, Abbott Lab, Callao
CUTTLEFISH BONE—50 cs, Guaranty Trust Co, Kobe
50 cs, S B Penick & Co, Takoradi
240 cs, Venice
DEXTRIN—500 bgs, Rotterdam
DILL SEED—100 bgs, S B Penick & Co, Bombay
100 bgs, Louis Furth, Bombay
300 bgs, M J Golombeck, Bombay
DINA ACID—23 dms, Hensel Bruckman & Lorbacher, Bremen
EARTH COLORS—900 bgs, Naftone Inc, Rotterdam
EUCALYPTOL—6 dms, Seville
EUCALYPTUS OIL—17 dms, Seville
EUPHORBIA—51 bls, Parke Davis & Co, Colombo
FISHLIVER OIL—2 dms, Interocean Chemical & Minerals Corp, Yokohama
3 dms, Albumina Supply Co, Yokohama
8 dms, Arista Oil Products Co, Yokohama
3 dms, Mitsubishi International Corp, Yokohama
FUEL OIL—321,384 bbls, Esso Standard Oil Co, Aruba
120,809 bbls, Asiatic Petroleum Corp, Havana
203,768 bbls, Paragon Oil Co, Tampico
215,673 bbls, Esso Standard Oil Co, Caripito
117,360 bbls, Esso Standard Oil Co, Las Piedras
93,340 bbls, Hess Inc, Punta Cardon
111,775 bbls, Paragon Oil Co, Point a Pierre
24,000 bbls, Esso Export Corp, Aruba
103,383 bbls, Asiatic Petroleum Corp, Curacao
FUEL OIL ADDITIVE—6 dms, Droil Enterprises Inc, Liverpool
GALLNUTS—1,112 bgs, J A Zaloom & Co, Beirut
GELATIN—30 dms, Hensel Bruckmann & Lorbacher, Rotterdam
200 bgs, T M Duche & Sons, Havre
30 bbls, Coignet Chemical Co, Antwerp
GERANIUM OIL—4 dms, Centflor Manufacturing Co, Tamatave
2 dms, Fritzsche Bros, Tamatave
2 dms, A Verley & Co, Marseille
GHATTI GUM—114 bgs, Morningstar Nicol, Bombay
171 bgs, Dingelested & Co, Bombay
GLYCERINE—119 tons, Colgate Palmolive Co, Buenos Aires
GRAPHITE—250 bgs, Asbury Graphite Mills, Mombasa
500 bgs, Asbury Graphite Mills, Colombo
1,500 bgs, Asbury Graphite Mills, Hong Kong
500 bgs, Asbury Graphite Mills, Bergen
535 bgs, Joseph Dixon Crucible Co, Colombo
250 bgs, Superior Graphite Co, Colombo
250 bgs, Asbury Graphite Mills, Tamatave
750 bgs, C Pettinos, Tamatave
250 bgs, Joseph Dixon Crucible Co, Tamatave
250 bgs, Tamatave
GUAR GUM—1,586 bgs, Stein Hall & Co, Bombay
GYPSUM, CRUDE—20,738 tons, U S Gypsum Co, Hantsport
16,501 tons, National Gypsum Co, Halifax
HENNA LEAVES—41 bls, S B Penick & Co, Bombay
HEXAMETHYLENDIAMINE—2 dms, Crinoplast Inc, Genoa
INDIGO—192 dms, Putnam Chemical Corp, Rotterdam
IRON BLUE—36 dms, Van Oppen & Co, Liverpool
IRON OXIDE—4 dms, Bremen
IRON POWDER—54 dms, Hensel Bruckmann & Lorbacher, Rotterdam
KARAYA GUM—307 bgs, Jacques Wolf & Co, Bombay
307 bgs, Colony Import & Export Corp, Bombay
134 bgs, Stein Hall & Co, Bombay
186 bgs, Stein Hall & Co, Marseille
66 bgs, S B Penick & Co, Bombay
66 bgs, Morningstar Nicol, Bombay
KELPMEAL—100 bgs, N K M Importing Co, Bergen
LAVENDER FLOWERS—20 bls, Meer Corp, Marseille
117 bgs, Alicante
LEMONGRASS OIL—11 dms, Volkart Bros, Cochin
40 dms, Van Ameringen Haebler, Cochin
36 dms, Lo Curto & Funk, Cochin
12 dms, George Lueders & Co, Cochin
45 dms, Givaudan Corp, Cochin
69 dms, Maywood Chemical Works, Cochin
6 dms, Centflor Manufacturing Co, Cochin
LIGNIN PITCH—1,600 bgs, Barrentan Research Corp, Oslo
LOCUST BEAN GUM—50 bbls, T M Duche & Sons, Rotterdam
100 bgs, S B Penick & Co, Genoa
350 bgs, Hanover Bank, Portimao
840 bgs, Stein Hall & Co, Genoa
LOCUST BEAN POWDER—50 bgs, Nehls & O'Connell, Genoa
25 bbls, J Einstein Co, Genoa
MACE—16 cs, C Czarinkow, Singapore
14 cs, A G Dunn, Singapore
42 cs, Karl H Landes & E Balint, Singapore
MAGNESITE—200 bgs, Smith Chemical & Color Co, Rotterdam
MARJORAM—240 bgs, Callao
MENTHOL—100 cs, Chemical Bank, Santos
80 cs, Bankers Trust Co, Santos
65 cs, Marine Midland Trust Co, Santos
2 cs, American Express Co, Kobe
MERCURY—850 flks, Cadiz
MINT OIL—27 dms, Lo Curto & Funk, Buenos Aires
MOLASSES—477 tons, W R Grace & Co, Salaverry
MOLYBDENUM DISULFIDE—20 kgs, Climax Molybdenum Co, Liverpool
MONTANIC ACID ESTER—2 bgs, Putnam Chemical Corp, Rotterdam
MYROBALANS—800 bgs, River Plate Corp, Bombay
3,690 bgs, Hammond & Carpenter, Visakhapatnam
NAPHTHALENE—579 bgs, American Cyanamid Co, Rotterdam
1,167 bgs, Gallard Schlesinger, Antwerp
500 bgs, Hudson Shipping Co, Antwerp
NAPHTHENIC ACID—2,515 bbls, Esso Standard Oil Co, Aruba
NAPHTHOL—24 dms, Hensel Bruckmann & Lorbacher, Hamburg
20 dms, Genoa
NUTMEG—44 bgs, Catz American Co, Trinidad
50 bgs, Ungerer & Co, Rotterdam
250 bgs, George Lueders & Co, Rotterdam
125 bgs, Dodge & Olcott, Rotterdam
14 bgs, Kellys America Ltd, Hamburg
67 bgs, Karl H Landes & E Balint, Macassar
148 bgs, Ludwig Mueller, Macassar
112 bgs, George Lueders & Co, Colombo
283 bgs, Rotterdam
OCOTEA CYMBARUM OIL—23 dms, Geismar & Co, Itajai
44 dms, Chase Manhattan Bank, Itajai
OJEFICIN POWDER—3 dms, Astoria Pan-Americana, Iquitos
OLIBANUM GUM—300 bgs, Meer Corp, Aden
16 bgs, Wm M Allison & Co, Aden
48 bgs, S B Penick & Co, Aden
OLIVE OIL—100 dms, J D Niclaou Co, Tunis
25 dms, Castello Packing Co, Tunis
72 dms, M A Fiore & Co, Tunis
48 dms, Schroder Bros, Tunis
24 dms, F Capizzi & Sons, Tunis
48 dms, B M Reeves Co, Tunis
49 dms, J H Schroder, Malaga
150 dms, National City Bank, Seville
104 dms, Moscahlaues Bros, Piraeus
26 dms, J Fenara & Sons, Piraeus
26 dms, California Olive Oil Co, Piraeus
OPIUM—125 cs, S B Penick & Co, Istanbul
OPOPONAX GUM—80 bgs, S B Penick & Co, Aden
16 bgs, Van Amerigen Haebler, Aden
PALM OIL—200 tons, Procter & Gamble Co, Matadi
199 tons, Balfour Guthrie, Matadi
PALMKERNEL OIL—299 tons, Matadi
PAPAIN—100 cs, Bemo Shipping Co, Colombo
100 hf chts, Salentine & Co, Colombo
6 cs, Chas L Huisking & Co, Dar es Salaam
PEPPER, BLACK—880 bgs, Borneo Sumatra Trading Co, Tandjong Priok
254 bgs, Jacoberg Overseas Inc, Tandjong Priok
140 bgs, C Czarinkow, Singapore
80 bgs, Ludwig Mueller, Cochin
80 bgs, Ludwig Mueller, Alleppey
210 bgs, A G Dunn, Singapore
50 bgs, Borneo Sumatra Trading Co, Singapore
900 bgs, Virchand Panachand, Belem-Para
350 bgs, George Uhe Co, Singapore
416 bgs, Mincing Trading Corp, Cochin
80 bgs, C Czarinkow, Cochin
160 bgs, Otto Gerdau, Colombo
160 bgs, C M Van Sillevoldt, Colombo
140 bgs, Singapore
80 bgs, Alleppey
80 bgs, Colombo
PEPPER, WHITE—70 bgs, George Uhe Co, Singapore
455 bgs, Singapore
a-PICOLINE—20 dms, Industrial Chemical & Dye Co, Liverpool
PINENEEDLE OIL—27 dms, Antwerp
POLLACKLIVER OIL—50 dms, National City Bank, Yokohama
50 dms, Albumina Supply Co, Yokohama
50 dms, Arista Oil Products Co, Yokohama
50 dms, Mitsubishi International Corp, Yokohama
20 dms, Chase Manhattan Bank, Yokohama
POLYPROPYLENE—3 dms, Genoa
POTASSIUM METABISULFITE—100 dms, H Reifenberg, Rotterdam
POTASSIUM SILICATE—600 bgs, Sylvania Electric Products, Rotterdam
POTATO STARCH—100 bgs, Rotterdam
PRUSSIAN BLUE—15 dms, Transatlantic Pigment Corp, Rotterdam
PYRETHRUM FLOWERS—100 bls, P H Petry, Puna
125 bls, Prentiss Drug & Chemical Co, Mombasa
PYROGALLIC ACID—6 cs, Eastman Kodak Co, Glasgow
QUEBRACHO EXTRACT—7,252 bgs, Barkey Importing Co, Buenos Aires
1,631 bgs, International Products Corp, Buenos Aires
4,157 bgs, Buenos Aires
100 bgs, Glasgow
SANDALWOOD OIL—3 cs, Noville Essential Oil Co, Cochin
16 cs, J Berlage, Cochin
10 cs, Kane Import Corp, Cochin
18 cs, Cochin
SASSAFRAS OIL—44 dms, Itajai
SENNA LEAVES—250 bls, Irving Trust Co, Tuticorin
30 bls, Max Pels, Tuticorin
SHELLAC—25 bgs, Brown Bros, Bremen
100 bgs, Wm Zinsser & Co, Calcutta
SILICON CARBIDE—5,916 bgs, Great Lakes Overseas Inc, Oslo
SODIUM ARSENATE—277 dms, Orlex Dye Chemical Corp, Marseille
SODIUM BICARBONATE—500 bgs, Chemical Manufacturing Co, Liverpool
SODIUM CHLORITE—100 dms, Metro Atlantic, Bremen
100 dms, Rotterdam
SODIUM CYANIDE—743 dms, Chemical Manufacturing Co, Liverpool
SODIUM PERBORATE—331 bgs, Philipp Chemicals, Rotterdam
SPEARMINT LEAVES—356 cs, P H Petry, Andria
STARCH—100 bgs, Rotterdam
111 bgs, Antwerp
SULFADIAZINE—20 dms, Yokohama
SULFUR—5,075 tons, Dixon Chemical & Research Inc, Coatzacoalcos
2,501 tons, Allied Chemical & Dye Co, Coatzacoalcos
TALC—540 bgs, Charles Mathieu, Genoa
TANNING EXTRACT—500 bgs, Barkey Import Co, Liverpool
TAPIOCA—224 bgs, American Key Products, Tutave
445 bgs, American Key Products, Majunga
TAPIOCA FLOUR—4,000 bgs, Stein Hall & Co, Bangkok
1,000 bgs, Harry F R Dolan Jr, Bangkok
508 bgs, Wan Chang Corp, Penang
2,208 bgs, Morningstar Nicol, Bangkok
2,000 bgs, Morningstar Nicol, Atajai
THIOUREA—400 bgs, Bzura Inc, Kobe
THYME LEAVES—224 bgs, M J Golombeck, Alicante
TRICHLOROETHYLENE—76 dms, Chemical Manufacturing Co, Liverpool
50 dms, Venice
TUNG OIL—290 tons, C Tennant Sons & Co, Buenos Aires
650 tons, Bunge Corp, Buenos Aires
330 tons, Buenos Aires
ULTRAMARINE BLUE—50 dms, Fezandie Sperrle, Rotterdam
UREA—182 bgs, Chemical Construction Corp, Yokohama
800 bgs, Philipp Bros, Chemicals, Kobe
UREA, SYNTHETIC—4,000 bgs, Chemical Manufacturing Co, Liverpool
VANILLA BEANS—98 cs, Lo Curto & Funk, Antalaha
45 cs, Colvert Mills Co, Antalaha
34 cs, Zink & Trieste, Antalaha
23 cs, Denman & Co, Tamatave
30 cs, Thurston & Braidich, Tamatave
48 cs, Lo Curto & Funk, Tamatave
73 cs, Chase Manhattan Bank, Tamatave
60 cs, Tamatave
WATTLE EXTRACT—529 bgs, Hammond & Carpenter, Durban
533 bgs, Barkey Importing Co, Durban
WHITING—1,200 bgs, N H Weitzner, Antwerp
WOOL GREASE—50 dms, Gallard Schlesinger, Bremen
47 cs, Chemical Bank, Liverpool
51 bbls, Genoa
WOOL WAX—10 kgs, Olympic Shipping Co, Liverpool
ZINC OXIDE—226 bgs, C B Chrystal Co, Marseille

Los Angeles

AGAR—26 cs, P n Asiatic Trading Co, Yokohama
ANTIMONY REGULUS—100 cs, C Gitlan, Antwerp
BRONZE POWDER—36 dms, Alumatone Co, Hamburg
CARDAMOM SEED—25 cs, Universal Foreign Service, San Jose
COPRA CAKE—2,000 bgs, Balfour Guthrie, Cebu
4,000 bgs, American Trust Co, Cebu
2,240 bgs, Procter & Gamble Co, Manila
2,240 bgs, Pacific Vegetable Oil Corp, Manila
2,000 bgs, Paul X Smith, Manila
EARTH COLORS—1,575 bgs, Naftone Inc, Bremen
FISHLIVER OIL—50 dms, Interocean Chemical Minerals Corp, Yokohama
IRON OXIDE—672 bgs, London
PEATMOSS—1,000 bls, J Schumacher Co, Bremen
600 bls, Wilbur Ellis Co, Bremen
WHITING—3,000 bgs, Antwerp

Philadelphia

ASBESTOS FIBER—1,600 bgs, Liverpool
BLANC FIXE—1,200 bgs, Rotterdam
CALCIUM PHOSPATE, DIBASIC—404 bgs, Chase Manhattan Bank, Antwerp
CASEIN—700 bgs, Buenos Aires
EUCALYPTUS OIL—16 dms, Melbourne
GYPSUM—5,140 tons, U S Gypsum Co, Hantsport
MAGNESITE—1,561 tons, Split
NAPHTHALENE—1,250 bgs, Bremen
PEATMOSS—500 bls, Rotterdam
POPPY SEED—100 bgs, Covorna Co, Rotterdam
200 bgs, Kauffman Co, Rotterdam
POTASSIUM HYDROXIDE—5 dms, Rohm & Haas, Rotterdam
QUEBRACHO EXTRACT—1,394 bgs, Barkey Importing Co, Buenos Aires
RUTILE SAND—37,247 bgs, Brisbane
500 bgs, Sydney
UREA—2,000 bgs, Liverpool

San Francisco

AMMONIUM BICARBONATE—55 dms, C M Chemicals, Middlesbrough
100 bgs, C M C Chemicals, Middlesbrough
AMMONIUM CHLORIDE—400 bgs, I M Sobin Co, Rotterdam
ASBESTOS FIBER—3,210 bgs, Thornley & Pitt, Lourenco Marques
3,000 bgs, Johns Manville Corp, Lourenco Marques
1,160 bgs, Lourenco Marques
BEEF EXTRACT—7 cs, Tupman Thurlow, Buenos Aires
CARAWAY SEED—225 bgs, B C Ireland, Rotterdam
150 bgs, Pauli & Sons, Rotterdam
CASEIN—300 bgs, Western Dairy Products, Auckland
506 bgs, J R Spellacy, Sydney
257 bgs, Pacific National Bank, Rotterdam
COPRA—500 tons, Pacific Vegetable Oil Corp, Cebu
500 tons, Cargill Inc, Castanas
500 tons, Cargill Inc, Cebu
250 tons, American Trust Co, Manila
DEXTRIN—100 bgs, H B Fuller Co, Rotterdam
GRAPHITE—600 bgs, Transpacific Transport, Dueban
IRON OXIDE—1,568 bgs, London
PEATMOSS—200 bls, Frazar & Hansen, Bremen
PEPPER, BLACK—70 bgs, H M Newhall & Co, Singapore
80 bgs, Borneo Sumatra Trading Co, Singapore
70 bgs, Singapore
PETROLEUM, CRUDE—175,500 bbls, Tidewater Oil Co, Sungai Pakning
36,876 tons, Standard Oil Co, Sungai Pakning
POPPY SEED—50 bgs, Durkee Foods, Copenhagen
SAVORY LEAVES—20 bgs, H M Newhall & Co, Marseille
TANKAGE—400 bgs, International Packers Ltd, Rio Grande
TAPIOCA FLOUR—3,873 bgs, Stein Hall & Co, Singapore
564 bgs, American Key Products, Singapore
1,200 bgs, Brown Bros, Singapore
1,120 bgs, Morningstar Nicol, Singapore
2,500 bgs, American Key Products, Hong Kong
TUNG OIL—258 dms, Transpacific Transport, Buenos Aires
ZINC OXIDE—2,040 bgs, London

Petroleum Derivatives

Conditions in the petroleum sphere were relatively good last week. If not what they could be, at least, promising, a trade source commented. For some materials—waxes, sulphonates, among them—buying interest ranged from routine to much better than. But not way up there with Sputnik II and some democrats. Tariff Commission figures for August indicate that benzene production increased in that month—about one-half million gallons more than were produced in July. At the same time, toluene output decreased by some 3 million gallons. Xylene production, compared with July figures, was up slightly. It is readily apparent that the 6 million gallons of benzene imported in August represented quite a large percentage of the material coming on the market at that time.

Cleaners' naphtha sales were about average for the season, a member of the trade said. Nothing to write home about, however, he added. The market for VM&P naphtha was reported as stable with trading moderate but well sustained. Supposedly, sales of VM&P so far this year have been better than for the corresponding period in 1956.

According to some producers, demand for liquefied petroleum gases was shaping up last week. Cooler weather provided the required impetus. Buying interest in butane, used extensively in cold weather gasoline, and propane, a home heating fuel, fluctuates with the thermometer. Up to the present time, unseasonally warm weather—at least in the East—has hampered sales, it was said.

Production of crude petroleum in the U. S. for the month of August averaged 6,786,000 barrels daily, a decrease of 87,000 barrels daily compared with July, the Mines bureau reported. Total crude stocks, domestic and foreign, were 283,388,000 barrels on August 31 compared with 288,241,000 barrels on July 31. And stocks of refined products were 36.4 million barrels higher than on August 31 last year.

Currently, it is believed that crude imports by the end of the year may be down close to the recommended 1,031,000 barrels daily level.

Solvents and Diluents

Benzene — August production, as reported by petroleum operators to the Tariff Commission, totaled 9,834,904 gallons, an increase of about 500,000 gallons from July. Benzene output from tar distillers and cokeoven operators was 17,218,366 gallons. Both sources reported slight increases in production.

It is apparent that benzene imports in August of almost 6 million gallons represented a considerable portion of the material coming on the market in that month.

For some time now, sources said, demand has trailed behind production. Whether this situation will lead to a price break later on was still a matter for conjecture.

Toluene—Production in August, the Tariff Commission reported, reached 15,362,624 gallons. Of this amount, 11,929,676 gallons were produced by other than coke-oven operators. Total output for the month was approximately 3 million gallons less than that reported by the Tariff Commission for July.

Market activity was calm last week, trade sources said. Prices were unchanged. Demand lagged. Supplies were high. As with most materials in this and other markets, competition for existing outlets was vigorous.

The price situation—not so long ago a very hot issue—has all but died out.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
106.74	106.74	106.83	105.71

For Current Prices See Page 9

While it is generally believed that the material is moving to consumers in some instances at less than posted prices, there has been no recent effort on the part of producers to alter price structure.

VM&P Naphtha—Demand was moderate and steady last week, it was said. The east coast tankcar price stood at 19c. per gallon and this quote was not expected to be erased from the books in the immediate future. Generally speaking, sources said, the market was in good shape though buying interest could be better, naturally.

Xylene — August output just about matched that of July. The Tariff Commission figures are 11,036,085 gallons for August, 11,140,659 gallons for the preceding month. Figures include xylene production from both petroleum and coaltar.

Some members of the trade last week remarked that while there was no upsurge in demand this fall, sales were picking up considerably at the present time. Xylene supplies, though not as long as toluene, were sufficient, nonetheless, to make the market a trifle sloppy. There was nothing new in the price department.

LPG's

Daily average production of liquefied gas at refineries in August was 6 million gallons, 3 percent above a year ago, the Bureau of Mines reported. At the same time, daily average production of LP-gas at natural gasoline and cycling plants—16.2 million gallons—decreased 1 percent from 1956.

Demand for liquefied petroleum gases for fuel and chemical uses in August decreased 5 percent compared to August a year ago, the Mines Bureau reported. Stocks of these gases were 386 million gallons above a year ago and increasing 41.8 million during the month of August. Stocks of LP-gases totaled 1,002 million gallons of which 760 million gallons were stored underground.

Butane—Total production, October 1-15, was 60,230,000 gallons. For the preceding two week period, LP-gas output reached 52,100,000 gallons. The reverse situation was true of liquefied refinery butane. Production in the first half of October was 11 million gallons less than the September 16-30 output. The API reported the October figure at 23,903,000 gallons.

Propane—Liquefied petroleum gas production amounted to 132,895,000 gallons during the first two weeks of October. For the September 16-30 period, output was 128,041,000 gallons.

At the same time, LR-gas production totaled 52,272,000 gallons, a decrease of approximately 9 million gallons compared with the output of September 16-30.

Miscellaneous

Crude Oil—Current reports of the industry for the week ended October 25, 1957, indicate an increase in crude-oil production and a decrease in crude runs. According to the API, the daily average output of crude (including lease condensate) was 6,766,000 barrels, an increase of 19,000 barrels from the preceding week. Daily average crude runs to stills of 7,649,000 barrels were 212,000 barrels below the preceding week, and 21,000 barrels below the week ended October 26, 1956. Runs of foreign crude amounted to 1,012,000 barrels daily, compared with 967,000 barrels in the preceding week. For the four-week period ending October 25, crude oil production averaged 6,764,000 barrels daily, and crude runs to stills averaged 7,758,000 barrels daily with runs of foreign crude averaging 1,001,000 barrels daily.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended October 26 totaled 282,408,000 barrels, according to data reported to the Bureau of Mines. Compared with the total of 284,878,000 barrels for the preceding week, this represents a decrease of 2,470,000 barrels comprising a decrease of 2,337,000 barrels in stocks of domestic crude and a decrease of 133,000 barrels in stocks of foreign crude.

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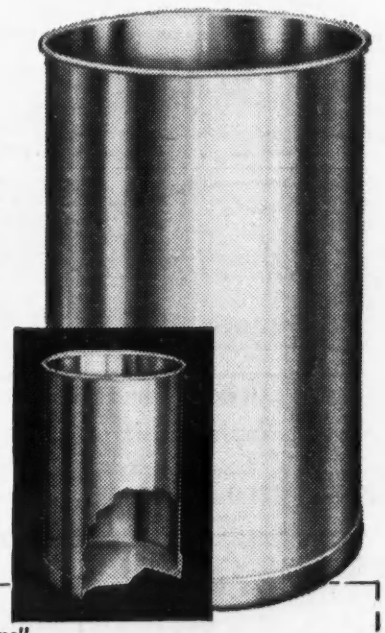

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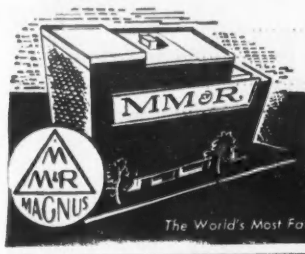

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Essential Oils, Aromatics

Though heightened demand—resultant of the burgeoning seasonal perio has aroused this market somewhat, declining prices in the essential oils and r material source markets continue to scar this period. Elemental in the c clining areas of the market is the presence on spot of the products of newe materials, products which nearly always appear soft until quantity enough h been digested by the market to forestall a glut. Lemongrass oil and citronella oil both declined further on spot last week. Both materials, though soft for some time, had been quiet and unmoving in position for a number of weeks. Other materials in motion on spot were bergamot oil, which has been strong and continues to grow in that direction, and styrax, which strengthened on spot because of developments in the foreign market. Oils that eased on spot included chenapodium, geranium, ginger (down sharply) and patchouli.

The seed and spices market underwent no significant changes last week, one major source here reported. Business was confined to a number of spot sales to the consuming trade. Both the origins and importers resisted the trend towards lower prices and consumer demand was sufficient to clear the docks of most of the heavy arrivals of the last two weeks. It is to be expected that with a decline in the expected November and December arrivals and a significant reduction in the number of new consignments, the market may tighten somewhat. So far India has made no substantial attempts to sell newcrop Malabar, and their attitude seems to be predicated upon a late crop and the expectation of heavy Russian purchases for December and January shipment.

Nutmegs were in fairly good demand in the seeds and spices spot market during last week and a number of weak holders liquidated their positions, one source here noted, leaving the few remaining lots in strong hands. Mace also attracted attention due to the fact that it is undervalued in relation to nutmegs and any increase in the demand for mace should bring a price advance, it was said.

Price Trends

Advanced

Cloves, Madagascar, a.r., ½c. per lb.
Ginger, Cochin, ½c. per lb.
Jamaica, No. 3, 1c. per lb.
Nutmegs, East Indian, 2c. per lb.

Reduced

Cassia, Padang Vera, 'C,' ¼c. per lb.
Korintji, 'C', ¼c. per lb.
Celeryseed, indian, ½c. per lb.
Citronella oil, 8c. per lb.
Cuminseed, Iranian, 1c. per lb.
Ginger oil, $1.50 per lb.
Lemongrass oil, 10c. per lb.
Mace, Siauw No. 2 siftings, 5c. per lb.
Patchouli, 25c. per lb.
Poppyseed, Dutch, ½c. per lb.
Thyme, red., 20c. per lb.

Comparative Price Indexes

(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
152.35	149.92	145.82	142.31

For Current Prices See Page 9

Essential Oils

Bergamot—A report from London noted the advance in Bergamot at source reported here earlier. The demand for Bergamot, the London report said, is very heavy, particularly in France, Germany and the United States. Owing to the exceptional heat in southern Italy this summer it was obvious that the fruits had suffered considerably and the newcrop due in December/January will be reduced in quantity. At the present time of the report (late October) it was said, there were fair stocks in the Consortium warehouses, though the group had taken the precaution of making monthly allocations of a considerably reduced figure to avoid a serious shortage. The consortium is particularly anxious to avoid any opportunity of speculation. All oils of French origin, it was noted, had a slight reduction but it was too early to state the exact prices.

Chenopodium—This market softened somewhat on spot last week one source here reported. The new quote, a range of $4.55 to $4.65 per pound, is 10c. per pound less than had been previously quoted on spot. The movement was attributed to the persisting soft tone of the Italian source

Citronella—Formosan quality citronella oil softened visibly on spot last week, dealers here reported. The new spot quote, about 87c. per pound, 8c. per pound less than previously quoted, is said to be a new low for this material on spot. The condition of the citronella oils market has persistantly been a soft one and the consensus attributes the situation to t heavy production factor in Formosa. cause of the economic position of t Island with its disproportionate populati situation, the importance of the citrone crop is understandable. Also the hea production factor also, in light of the f that citronella is a major export of t island. No variation in the situation expected. The soft tone has persisted a will continue to do so and unless so drastic factor enters into the situation, t soft tone will continue and probably volve further price developments.

Geranium—Bourbon quality mater softened on price last week dealers he reported. The material is currently selli at an inside price of about $16.50 p pound. This quote is about 50c. per pou less than that previously quoted. T movement has been attributed to a bet supply picture than had been previous true. Also, it was said, demand slacken slightly.

According to a London report, althou this market fell by virtue of the devalu tion (of the franc), the position has be quickly recovered by the growers a vancing their prices which very nearly a sorbed the best part of 20 percent. Af can geranium oil, the report noted, w high with expectations that the present p sition would be maintained. Morocca geranium, the report said, followed th bourbon material developments.

Ginger—This material was down sharp ly according to some dealers' spot listing The latest movement brought the quot down to about a $16.50 per pound spo quote or about $1.50 per pound less tha had been previously quoted.

Jasmin—A London report on this ma terial noted that the price fixed for Jas min was 650 francs per kilo on spot. Th size of the crop was said to be relativel normal.

Lavandin—As usual, a London repor noted on this material, the crop started a the end of July but, on account of the ver bad yield obtained, the distillation was pu back a few weeks. The poor yield, it wa said, was very unusual and it was attrib uted to the heavy rains of May and June If the average yield of this year's crop it was said, turned out to be as poor a that obtained at the beginning of the dis tillation it would not be surprising if a rise was recorded on the lavandin oils (n such advance has to-date been reported) in such a case the quantity of oil that wa produced would not be so large as previ ously forecast.

Lemongrass—This oil which has been a soft market material for some time, shift ed downward on spot last week after pre cariously perching at previous levels fo a number of weeks. The new listing, about 90c. per pound with shadings to be found down to 85c. per pound, is 10c to 15c. per pound less than had previously been quoted on spot. The position of lem ongrass, manufactured nearly totally in India, has been a persistently easy one due to the heavy manufacture of material at source. The material has been so steadily produced in excess of demand that there has seldom been time for the market to catch its breath, even during the days of the Suez crisis when there was some question of the material reaching spot. Not too long ago there was infor-

Imports Detained at N.Y.

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Angelica Root, 20 bags.
Black Pepper, 21 lots, 2,561 bags.
Cassia, 7 lots, 529 bags.
Cumin Seed, 255 bags.
Penugreek Seed, 2 lots, 420 bags.
Gum Karaya, 50 bags.
Ginger, 170 bags.
Mace, 5 lots, 77 bags.
Nutmegs, 5 lots, 200 bags.
Sage, 196 bales.
Sesame Seed, 39 bags.
Turmeric, 112 bags.
Uva Ursi Leaves, 100 bales.

ssential Oils

tion released to the effect that governnt and production elements in India inded to organize the market to the de- that the production picture might to e degree be brought into juxtaposition h that of demand. However, nothing date has pointed toward any fulfillment hat end.

Patchouli—This material was one of a mber of oils that reflected a softening e early last week. The new quote on t, a range of $5.25 to $5.50 per pound, 25c. per pound less than had been preusly quoted on spot. Dealers here atbuted the development to hightened ply and somewhat indifferent demand.

Vetiver—One major dealer here on spot ed last week that production of Haitian ality material is down somewhat. The uation was attributed by the spot source the rainy season and also, of course, to political crisis which continues to af- t that source island.

Sandalwood—The London report on this terial noted that the market always aprs uncertain. As a matter of fact, the ort said, different prices were quoted m the source which meant, most probly, that a rather large quantity of oil nains unsold and that sellers will dise of their stock before the next auction es.

Rose De Mai—The demand for this maial, according to a recent English re- rt on that spot market, has been and ll is large and also, on account of the ficiency in this year's crop, the quanes required are difficult to cover.

Thyme—Red thyme was softened in tone one major producer on spot last week, has been noted. The new quote, $1.90 r pound, is 20c. per pound less than had been previously quoted for on spot.

romatic Chemicals

Styrax—Prices for this material adnced slightly further last week, climbing per pound to a $1.25 per pound inside ote on spot. A major factor in the mart development is that of Asiatic styrax, which is scarce and has been advancing. Honduran styrax, one source said, has been reduced by 25c. per pound to the basis of $1.50 for material "as imported" and $2 for purified gum. Recently advanced prices for Asiatic styrax ranging from $1.25 to $1.35 per pound are largely nominal because of limited supplies.

Seeds and Spices

Cloves—Madagascars was said to have strengthened last week on rumors that a floor price was going to be established at source. Zanzibars were said to be very scarce and there was no replacements coming forward because shipment levels were about 10c. a pound higher than Madagascars.

Nutmegs—East and West Indian grades were firmer again last week. The movement was attributed to the seasonal demand's heavy drain on the spot reserve. There has been no change in Grenada's shipment level, and only occasional lots of East Indian material will be finding their way to New York via Singapore.

Paprika—Reports from Spain state that minimum prices will be reviewed November 8. The market abroad is firm and there appears to be some agitation to advance the floor price. However, dealers are still willing to contract at opening levels for future shipments.

Pepper—One source here noted last week that the market ruled relatively steady. An undertone of interest was evident in shipments and deliveries through March of next year. Only fractions, it was claimed, could be carved from spot and afloat levels because of the rigid markets at source. Reports from India stated that 700 tons have been sold to Russia. Price levels there for newcrop were claimed to be on a par with the New York spot price. Offerings of Sarawak and Lampong from Singapore were likewise firm, and there was no disposition shown to meet close bids. Off and on, Indonesia has accepted orders a fraction under other origins, but it is pretty much of a hit or miss proposition. They do not appear as competitive sellers consistently. Even Brazilian is not being pressed at current levels.

Positions of white pepper, it was said, were about unchanged. Arrivals were being consumed by a steady although unspectacular demand. Afloat supplies were moderate. Shipment levels remained firm.

Red pepper prices from Japan on newcrop Hontakas and Santakas were high, it was said. The quantity of these grades that had been held in cold storage in New York were said to be relatively small. Domestic production is about over because of recent frosts.

Vanilla Beans—Prices for this material were reported unchanged last week. The market was featured, a source noted, by an undercurrent of strength particularly in view of the generally firm statistical position in bourbon beans. Producers in Madagascar have little carryover of stocks from the the last crop and are currently asking the equivalent of $7.35 per pound for newcrop beans for January forward shipment.

NPFI Absorbs Group To Set Up Midwest Unit

A plan under which the activities of the Middle West Soil Improvement Committee of Chicago will be merged into the program of the National Plant Food Institute has been approved by the institute board of directors.

The Middle West Soil Improvement Committee, of which Zenas H. Beers is executive secretary, will serve as the midwest regional office of NPFI with headquarters in Chicago, effective January 1, 1958.

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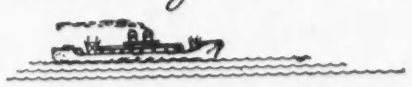

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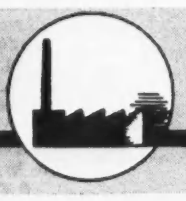

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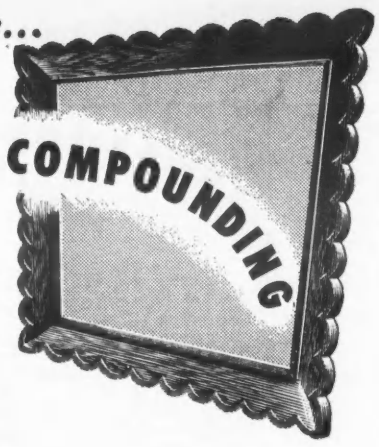

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NPVLA Convention Report

Paint Industry Seen Facing Challenges

—*Continued from page 7*

and a balanced budget the decision must always rest with the former. "But I am convinced," he said, "that we are not faced with such a choice."

Noting that the nation's already large expendi ures in the rocket and missile field may have to be increased, the senator said, "I am convinced that somewhere within our huge defense budget we can find such additional funds as may be needed for missiles and satellites."

Speaking on the importance of keeping a sound dollar, Sen. Bennett strongly supported current monetary and fiscal policy, and sharply criticized those who advocate what he called "a policy of deliberate inflation."

The American dollar must and can be kept sound by "resolute action at both the governmental and individual levels," he asserted.

Price Paid for Inflation

"The price we pay for inflation," the senator declared, "is that of consenting to a policy of calculated theft. It means theft from the poor, the unorganized, from all those unable to protect themselves."

As the first step on the governmental level to keep the dollar healthy, he suggested, "we must preserve the independence of the Federal Reserve System."

"So long as the Federal Reserve maintains its independence," Sen. Bennett explained, "it is free to follow a flexible monetary policy, which means that when there is a developing business downturn the Federal Reserve can adopt a policy of monetary ease—as it did in 1953-54—whereas when inflation threatens the system can follow a policy of monetary restraint—as it has been doing during the past two years.

"Recently," the senator went on, "there have been suggestions that the Federal Reserve be required to support government bonds at par and other suggestions, going even further, that it abandon is flexible monetary policy.

"I believe it is essential to the maintenance of a sound dollar that these suggestions be dismissed and that the independence of the Federal Reserve be maintained.

"So long as we are faced with the problem of inflation—as indicated by a continuously rising price level—it would be a tragedy if the Federal Reserve were prevented from using its powers to bring inflation to an end."

As a second step on the governmental level, Sen. Bennett urged that the flexibility and freedom of the Treasury be restored. By this, he said he meant that "we must reduce the cost of government so that the Treasury is not continuously bumping up against the debt limit."

"To achieve a sound dollar," he added, "also requires that we re-examine the tax structure with a view to encouraging rather than penalizing thrift and sound economic growth. More than tax reductions are involved; we require an internal rebalancing of the tax structure.

"Finally, we must make every attempt

Battley Elected Again As NPVLA President

Joseph F. Battley, who marked his tenth anniversary as president of the National Paint, Varnish and Lacquer Association, was re-elected to a three-year term last week. Two awards were presented to him during the anniversary meeting.

One was the Good Neighbor award, presented by the Army Times Publishing Company for Mr. Battley's lifetime of friendship, leadership, counsel and support of the nation's armed forces.

The other presentation was a gold watch by Felix Juda, president of the National Paint Salesmen's Association, for outstanding service to the paint industry.

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LA VICE-PRESIDENT: Norman W. Kelley, ident of the Southern Varnish Corporation Roanoke, Va., who was elected to a one- term as vice-president of the National t, Varnish and Lacquer Association. Mr. ey succeeds Leo S. Guthman of Bradley & man Company, Chicago.

reduce interference with free markets. government should stop competing n private industry."

or its part, the senator said, industry uld try to be less dependent on gov- ment. Also, he felt that there should a re-examination of the implication of opolistic practices, not only on the t of industry but also on labor's part. ndustry, he continued, must also fol- a "prudent" price policy, "always re- mbering that the consumer is entitled some of the benefits of increasing pro- tivity."

Growth of individual companies should e from production, not from specula- , and growth should be consolidated ore venturing into new fields," he said. Company officials should become ac- inted with the facts of inflation and uld make sure that individual em- yees are made aware of these facts.

Wiser credit policies should be adopt- for there are far too many personal kruptcies resulting from unwise dit extension."

en. Bennett was of the opinion that the leral Reserve System and the admin- ation have been fighting a courageous t against inflation.

We are thus headed in the right direc- n," he concluded, "and while it may m to be the hard way it is the only nd way."

Need to Worry About '58: Weeks

Business need not worry about the out- k for 1958, Secretary of Commerce clair Weeks told NPVLA. The US nomy, he said, is leveling off "at a very h level," and next year "may be a ather, with changes from '57 fractional y."

An important fact to note," Mr. Weeks minded the paint manufacturers, "is t although overall business has been eling off, this sideways movement is, in t, on a record high level. The facts arly reveal that there are many plus tors in the economy."

Among these factors of strength, the retary pointed out that:

- Inflationary pressures have already ed somewhat.
- Needed civic construction, such as hways, schools and hospitals, is strong.
- Residential housing is firming up.
- Auto production of new models is get- g under way.
- Income and consumer spending con- ue very high.

With consumer income running along a peak," the administration official con- ded, "I expect Christmas buying to be y good. A substantial volume of holi- y sales should clear out stocks for fur- r factory orders."

beat' Seen for Business

Another optimistic business prediction me from Leo Cherne, executive direc- of the Research Institute of America. said that everything points to an "up- t" for business by the end of the r, "with good momentum for the early nths of 1958."

The fact is," Mr. Cherne pointed out, at consumer buying still provides and mises into the future a solid under- ning for the economy as a whole."

He said that he is strongly inclined discount the pessimistic headlines" ich have been appearing in the press. "They are premature, to say the least," Mr. Cherne contended.

"They are based in part upon the fact that September didn't bring a climb—as a matter of fact, it ran a shade under August in jobs, in production, in income."

Clients of RIA, he reported, have been advised that "no pick-up of any character could be expected before November, when the faster tempo of autos and other hard goods will begin to be felt."

Another reason why business prospects for '58 are good, he suggested, is that "the signals have been changed somewhat in government spending."

"I suspect," Mr. Cherne said, "that they will be changed rather dramatically when congress reconvenes. More money is being poured and will continue to be poured into the missile and rocket program with special attention to research and development."

Dr. Ernest Dale, associate professor of economics and business administration at Cornell University, stressed the need for organizational planning for business executives.

The first step, he said, is setting the objectives of the company, defining the responsibilities of the personnel and clarifying relationships among them. Organizational planning and development should lead to fewer overworked executives and better use of executive talent.

Communications, Dr. Dale stated, should improve along with line-staff relationship. Furthermore, he said, committee work and conferences are likely to be more fruitful.

NPVLA's History Recounted

In his presidential report, Joseph F. Battley gave an historical account of the National Paint, Varnish and Lacquer Association, touching on the highspots since its founding in 1888. *Following are some excerpts from that address.*

Our history, as you know, began at Saratoga Springs in 1888, on the day the National Paint, Oil and Varnish Association was founded. It was a time when wages were low and work hours long; there were no income taxes, and business knew no controls.

Ready-mixed paint was so new and some times so bad that its workers, and the manufacturing itself was relatively primitive: stone mill grinding of questionable materials.

* * *

The paint industry has come a long, long, long way in its seventy years of cooperative efforts, and the wonder of it is that so much progress has been made in so little time—for seventy years, after all, is the average span of one man's lifetime. And I think it would be appropriate at this time to mention a few of the multitude of accomplishments that have become our milestones.

In 1891 we launched the first national effort to establish a Department of Commerce, a mission that was finally accomplished some fourteen years later. And in 1900 we established the Trade Mark Bureau, which today has the only com-

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plete record of the brand names used in existence in the industry.

In 1904, we established the Educational Bureau, and it became one of the most constructive contributions to the industry's history.

Nineteen hundred and seven witnessed the establishment of Dr. Henry Gardner's laboratory—now our Scientific Section (its record of technical progress is unequalled by any industry) and in that same year the industry launched a campaign to increase the growing of flaxseed in the United States, and thereby started the development of a whole, new farm industry; three years later, we imported forty varieties of soybean seed from China for scientific study of oil content and drying properties, and was first to introduce that crop to America's farm industry.

Tung Research Cited

"The Cultivation of the Tung Tree in the United States," a scientific circular published by the Educational Bureau in 1912, ultimately resulted in the formation of the American Tung Oil Corporation. And in the same year, the late Allan W. Clark of St. Louis launched the Clean Up Paint Up—Fix Up program which under our sponsorship is recognized and accepted on a national basis as a part of community life from coast to coast.

The Unfair Competition Bureau was established and the Anti-Bribery Agreement was adopted in 1918 and through the years they have played a conspicuous role in the welfare of the entire industry.

Two highlights stand out from all the rest of the Twenties: The Code of Ethics was adopted in 1923 as a representative industry guide for broad principles of fair, honest and decent relations with the public and competitors.

The Thirties: The American Trade Association Executives awarded its bronze medallion to the association in 1932 for rendering the most valuable services to its members and to the public.

The following year, 1933, saw the consolidation of the National Paint, Oil and Varnish Association and the American Paint and Varnish Manufacturers Association (founded in 1903) into the present organization. Formula labeling in simple terms of certain generally used prod was adopted by our industry in 1938.

The Forties: In 1943, the associa was awarded the Army-Navy "E" the Maritime "M"; in 1945, the associa received the Navy's certificate of achi ment in "Recognition of Exceptional complishments in behalf of the US N and of Meritorious Contribution to National War Effort"; again in 1945, received the Treasury Department's tion of award "for distinguished serv rendered to the War's Finance Progra and also the Navy's Bureau of Ordna development award "in appreciation distinguished service to Naval Ordna Developments." In 1948 we started first active publicity program in "War Against Water" campaign.

The Fifties: The association's En gency Service Bureau kept all memb of the industry advised of new regulati and changes in existing regulations ing the Korean War emergency. In 1 the American Public Relations Ass

Paint Ass'n Receives Presidential Greetings

National Paint, Varnish and Lacquer Association received greetings from President Eisenhower at its seventieth anniversary meeting last week. The Chief Executive's message read:

"To the members of the National Paint, Varnish and Lacquer Association assembled in their seventieth anniversary meeting I send greetings. Over the past seventy years serving both industry and the public your association has contributed much to the national community in this tradition. I know you will continue to add strength and beauty to the building of America. My best wishes for a memorable convention."

(Signed) DWIGHT D. EISENHOWER

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REDS, Low Oil Absorption (5)	BROWNS, Precipitated (5)
REDS, Acicular (2)	BLACK, Precipitated

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ation awarded its silver anvil to the association for "its outstanding work in the trade association field."

Nineteen hundred and fifty-two witnessed the turning point, in our favor, in the area of government competition with the industry—and today, five years later, we are at the point of achieving complete success. The same year marked the executive committee's decision to greatly expand our program—In 1953, we started our National Consumer Survey of Painting Habits and the following year over 35 million people saw our three promotion films via the magic of television.

In 1954, too, we instituted the health education program. And so we come to this year of 1957, and accomplishments too recent, too fresh to really evaluate as milestones, although mention of the near certainty of the success of our long struggle with Navy competition, and of the fact that we are reaching a new high in dollar sales, should not be considered out of place.

Papers by FPVPC Affiliated Clubs

Description and Evaluation of the Kansas City Club Sag Tester

Kansas City Club

One of the most vexing problems confronting the formulator or the control technician is the evaluation or judgment of day-to-day variation in flow properties of architectural finishes.

Most control procedures on trade sales paints and enamels include some form of test designed to show resistance to sagging or running. Methods vary, but probably nine out of ten painters run a wavy "sag-line" with the end of the brush handle. Their opinion is formed by the way the paint flows or does not flow across this line.

Obviously there are several factors affecting this, such as the width of the sag-line, the thickness of the coating, and the time elapsed before the sag-line is drawn.

Another method, suggested by one of the southern clubs, consists of drawing across the paint a comb having teeth of various widths. The tendency towards running or sagging is indicated by the widest furrow over which the paint will flow.

Tes.s Heretofore Proposed

However, none of the tests heretofore proposed can be considered as other than qualitative or, at best, very roughly quantitative.

Furthermore, excessive sagging or running may or may not be indicated by these tests. It is also difficult to set up definite standards to which factory batches are required to conform.

The Kansas City Club Sag Tester is a simple device intended only as a means of evaluating relative flow between various batches or productions of the same paint or between two or more competitive paints up for comparison, or for evaluating the effectiveness of the many flow control agents which are on the market. It is only in this light that this sag tester can and should be viewed.

The proposed sag test using the Kansas City Club Sag Tester does not try to lay down limits or definitions which would indicate acceptable flow, too much flow, or too little flow for any and all types of paint. This would be utterly impossible. Different types of materials have different rheological properties and therefore will exhibit different flow properties when tested.

Use of Device

In practice the Kansas City Club Sag Tester would be used as follows for checking production batches for flow only:

1. A particular sample is tested in the normal brush-out fashion and is determined to be perfectly acceptable in all respects for flow. This is then designated as the control and a sag test is run under control conditions of temperature and humidity. Measurements are made on this sag chart and limits established for the material in question. The master sag chart and the control sample are then filed for future reference.

2. As each production batch comes up for test, a similar sag chart is run under the control conditions of temperature and humidity and measurements made on this sag chart. If the flow is within the prescribed limits established, the material is okayed for flow. If not, corrective measures are taken until a sag chart indicates that it is within the acceptable range. In case of question or dispute, the control sample is re-run with the sag tester and this chart compared to that of the batch in question.

The apparatus used in the Kansas City Sag Test consists offf

1. A metal cube approximately one inch on all sides with a ¾-inch hole bored through one side. On the edge connecting with this hole is a channel, in this case 10 mils deep. This cube is essentially a doctor blade laying down a wet film approximately 5 mils in thickness. Other dimensions of the cut are possible allowing greater flexibility for the use of this test. This cube had its origin in the Reichhold Dry Time Recorder and can be purchased on special order from Eastern Precision Gage Company. Be sure to specify the cut desired.

2. A Morest Form SFT, 8½ x 11. Note that this is an area for light or dark paints.

3. A straight edge preferably with a metal inset to reduce the possibility of friction.

4. A plant surface such as a piece of plate glass. A suction plate may be used but it is not absolutely essential.

Method of Test

The Morest Chart SFT is placed on a plane surface. The straight edge is aligned with the proper straight edge guide. (This is determined by the fact that the paint to be tested is either light or dark to insure proper contrast). At this point, the Kansas City Club Sag Tester (metal cube) is placed on the proper end of the chart and filled with enough paint to insure a complete drawdown. The sag tester is gripped firmly with the fingers, as is the straight edge, and a uniform rate of withdrawal is applied. The sag tester can be drawn completely over the edge of the Morest Chart onto a scrap piece of paper, eliminating the need of a wipe-up except on the sag tester. The Morest Chart SFT is then hung immediately in a vertical position with the drawdown in a horizontal position.

Judgment is made after a reasonable length of time. The paint need not be dry but should, of course, have set.

Selection of Optimum Source of Artificial Illumination for Matching of Colors

Philadelphia Club

Two specific objectives were sought in this study. First, to select optimum source of artificial illumination for the matching of colors under plant production conditions. Second, to select optimum source of artificial illumination for the matching of colors under all conditions to include consideration of metameric matches.

Efforts were made to assemble in one place as many different types of color

These technical papers were presented by affiliated clubs of the Federation of Paint and Varnish Production Clubs at the federation's thirty-fifth annual meeting in Philadelphia last fortnight.

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matching lamps as could be practically grouped together. Seven light sources were collected and set up, and although this did not include all known sources, it did represent a good cross-section of the types available to the paint industry.

Lamps evaluated in the color laboratory were:

device plastic chips were prepared in sets of red, blue, white, yellow and green. In practice, six different shades of each color were placed under a lamp and the degree of accuracy and facility with which they were matched by a duplicate set of colors was used as a basis of grading both the operator and the viewing condition. The

Lamps Evaluated in Color Laboratory

Manufacture	*Description*	*Color Temperature*	*Illumination Intensity in Foot Candles*
Crown Engineering and Sales Company	THE ANALYTE COLOR COMPARITOR A small fluorescent tube illuminating a small open type box	7500	150
Local	STOVER LAMP. A home made tall cabinet containing four Photoflood incandescent lamps.	3000	180
Local	NEW YORK CLUB BOX made according to the specifications of Technical Committee 67 of New York Production Club.	7300	75 35
Macbeth	EXAMOLITE fixture with booth	7500	70
Macbeth	COLOR MATCHING LAMP BBX-826 Daylight Horizon	 7500 2400	 60 40
Macbeth	COLOR MATCHING LAMP BBX-826 Daylight Horizon	 5400 2400	 70 42
Local	SPECIAL LAMP lighted by four fluorescent tubes of different colors to approach color distribution of north daylight.	7300°	19

Three types of color exhibits were used to evaluate these light sources.

1. The first color exhibit was based on plastic chips in which the colors were specifically chosen. In a manner similar to the technic used in creating and running the federation color aptitude testing comparison of ratings of all five colors by many different operators under all viewing conditions constituted the basis of this evaluation.

2. The second color exhibit was based on plant color matches submitted by committee members. Each member brought to the color laboratory large numbers of both paintouts and drawdown comparisons of plant batches compared with plant standards. All of these had been prejudged before being examined under the different viewing conditions. Here the thought was to see how "matches" appeared under the several different illumination conditions.

3. The third exhibit consisted of collecing and evaluating under all the light sources color matches of dissimilar materials such as matches achieved using different pigments and mediums. Ultramarine,, phthalocyanine and Prussian blues were examined as well as cadmium and chrome yellows. Color card chips were compared against plant production paintouts as well as numerous other non-homogeneous matches. Here, as in the case of matching plant production batches, note was made of how each "match" appeared under different sources of illumination.

In all, some 3,500 individual color ratings or matches or chip against chip were recorded. This mass of data developed no significant trends. The committee had expected to be able to show some correlation between color of light source and facility of matching blue or red colors of similar correlation but such was not the case. The most significant trends noted were differences in the ability of the several members of the committee to match colors and the fatigue factors. Consequently the basic conclusion that almost any source of artificial light may be adopted for plant work is accepted with firm conviction. Data from these evaluations is on file in the records of the committee.

The work done using dissimilar materials was most interesting. When metameric color matches were involved it was basic that two widely colored light sources be used to check for full agreement of color matching. Numerous examples of this phenomena were witnessed with perhaps the best example being in color card checking. In one case, a supplier of color cards had matched some twenty production colors supplied with chips. In daylight these matches were acceptable, but under the yellow incandescent lamp (2,800° Kelvin temperature) which is equivalent to interior lighting several of the color matches were completely unsatisfactory.

Side Observations

In addition to the two basic conclusions which the committee reached, there were numerous minor results or conclusions developed, which are of interest.

1. There seems to be more acceptance in the paint industry for high Kelvin temperature lamps (7,500° Kelvin) than any other temperature. This statement is based primarily on the results of the committee poll of selective paint manufacturers, reference appendix B. Further, it was corroborated many times from independent observation.

2. In 1948, Dorothy Nickerson wrote a paper, "The Illuminant In Textile Color Matching," in which she concluded, "The subcommittee recommends that artificial daylight lamps for textile color matching be aimed at 7,500° Kelvin with an illuminance of more than 75 and less than 300 foot candles." This paper was originally published in "Journal of the Optical Society of America," Vol. 38, No. 5, 458-466, May, 1948. This committee however, felt that illumination brighter than 150 foot candle induced too much eye fatigue if used for long periods of time.

3. Concerning the physical size and color of the interior of color matching booths—the committee felt that a box of interior dimensions of 3'x3'x2' deep was satisfactory. Color of a neutral gray (as Munsel N-7) was preferred over natural wood or black. Here it was a matter of personal choice of the operator, yet most of the committee agreed on the recommended size and color.

4. The color matching box recommended by the New York Production Club possess most of the features that this committee recommends for an artificial viewing condition. This box is economical and technically sound. It is thought, however, that a diffusing glass is necessary as the tubes and bulbs seem to produce an uneven light distribution within the viewing area. Further, the committee is not sure that fluorescent tubes are as reliable as a large incandescent lamp properly filtered.

Final Conclusions

After long and careful study of many artificial light sources and viewing conditions, our conclusions were as follows.

1. For production control within the practical limits of illumination intensity and reasonable disperison of light intensity of the color spectrum range any source of light can be used successfuly to match color as long as pigments present are similar in composition.

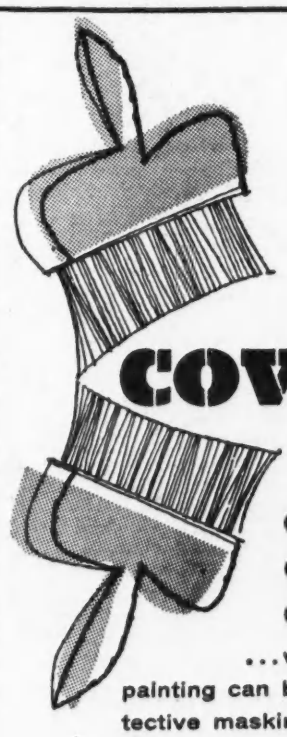
2. Multiple light sources are required to establish an all purpose viewing condition to mach colors when pigments present are metameric. This involves two light sources of different color temperatures with provision that colors would be mat under one set of condition (Kelvin 7,5 and then verified for agreement at ano condition (Kelvin 2,800°) or similar trasting conditions.

Instrumental Color Reproduction Paint

Baltimore Club

One of the selling points made for c measuring instruments is that, with th color standards which have been lost which have changed with time can reproduced as they were originally, u measurements made on the original st ard. Although this claim has been m for many of the available color measu instruments, there was no evidence kn to us to support it. It seemed desir to determine the precision with which could be done and, insofar as possible determine whether there was any mar choice among the available instrume in their ability to recover a lost co Two approaches were used by the coo ators.

One of these presented a "standard" be measured by instrument. This was t taken away and, several days later, a se of chips similar to the standard was



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NPVLA TREASURER: H. Braith Davis, president of the H. B. Davis Company, Baltimore, Md., who was elected for another one-year term as treasurer of the National Paint, Varnish and Lacquer Association.

sented. The problem was to select the chip nearest to the "standard" in color, simulating a situation where several replacement standards have been made and the best one is to be selected.

The second approach likewise presented a "standard" for measurement, which was then taken away. In this case, ingredients from which the "standard" had been made were presented several days later and the cooperator had to make, from measurements only, a tinted paint which matched the original "standard."

Conclusions

1. Color-measuring instruments are able to do an excellent job with non-metameric colors in reproducing color standards from measurements taken some time previously.

2. There does not appear to be any significant difference between instruments in precision. What difference there is lies in convenience and ease of interpretation of results. This depends, in large measure, on how much practice an operator has had with a given machine.

3. In selecting the "best" match from a set of chips, the instruments do very well in the range above 1 NBS unit. In this range, visual judgments are unequivocal. With smaller differences, results show some scatter, but so do visual judgments. In general, the performance of the instruments based on number values alone without a standard available for comparison, is about as precise as is visual judgment with the standard available.

4. In tinting to match a standard, the limiting factor appears to be the patience and experience of the operator rather than the precision of the particular instrument used to check his results.

5. No information is available as to the type of match which would be obtained by one instrument against a standard measured on another instrument, but this would be expected to be less accurate.

6. The ability of instruments to match standards that have been lost, or have changed, is about as good as is the ability of a trained color matcher to match them by direct comparison.

Anti-Rust in Paint Primers

Golden Gate Club

For some time there has been a theory that the rust inhibiting properties of various paint products could be improved by the addition of certain chemical compounds. The problem here was to select several practical primers and make the addition of these various compounds. The resulting films could then be checked for rust retarding effects through the use of the salt spray cabinet as a testing device.

PRIMER A

This primer was a zinc chromate, iron oxide, mica, talc-alkyd primer.

PRIMER B

The second primer was a modification of formula 6-16 as published by the Lead Institute. The big modification was that all the rust inhibiting pigments were removed and pure iron oxide substituted.

PRIMER C

The third primer was the 6-16 formula as published by the Lead Institute.

PRIMER D

The fourth primer, which was really an afterthought, was based on the low cost primer as described by New England Production Club in a copy of its recent publications.

Conclusions

After reviewing our results the following conclusions can be made:

1. As a whole, our tests indicate that increasing film thickness increased metal protection. We did not have this as a primary objective, but since this is evident, we thought we would note it in passing.

2. While film thickness is a contributing factor, the use of additives is in some instances of greater value. This is particularly true in that the additive will improve the protection in a certain direction. Thus one additive may help rust creepage greatly, but increase rusting somewhat. On the overall protection picture, the additive is of definite value.

3. In some instances, as noted before, the additive is actually harmful. The film is more prone to fail with the rust inhibitor added than before.

4. In both series of results it was emphatically shown that primers made with the classic rust inhibiting pigments such as red lead and/or zinc chromate show a definite degree of protection. Paints made with neither of these pigments available show complete failure after 300 hours in the salt spray cabinet, and the conclusions below pertain to these paints. The use of rust inhibitors here is of very little value so far as protection over a long period of time is concerned. In the early stages some of the additives show an upgrading of the film properties. However, in every case, no matter what the film thickness, the films showed complete failure at the end of 300 hours of exposure in the salt spray cabinet.

5. Not all rust inhibitors behave the same in all primers. Thus methyl linoleate showed definite improvement in Formula A, but was of no value in the products made with Formula C or D. In passing, it might be noted here that the addition of methyl linoleate in all cases appeared to raise the gloss of the primer. We believe that this additive helped materially in pigment wetting and therefore showed this gloss increase.

6. Certain additives will improve the protection of the film. In some instances the improvement over the control is not the same in all directions. In fact, in some phases it may actually decrease the effectiveness of the film. When we average the total protection, however, these additives are of definite value and improve the over-all protection of the original primer as compared to the control.

7. Although none of the additives that were tested showed to be outstanding in every series, two of the compounds could be rated as contributing to all the protective films. These two additives are Hercules HX-N-RA-50A and proprietary brand B. A close study of both tables of results will show that these additives upgraded the overall protective value of the films. Here, too, in some instances some phase of protection was decreased. However, the total value of metal protection was increased with formulas A, C, and D. Where no rust inhibiting pigments were present, as in formula B, in the early stages both additives were helpful. But at the end of the 300 hours, the films failed completely.

8. In many instances the additives changed the physical characteristics of the finished paint. As noted before, in many instances the drying time was definitely prolonged. In some cases, the viscosity increased and in some instances the films characteristics changed. These physical

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NPVLA Convention Report

changes occurred at random and do not correlate with either upgrading or harming the rust inhibiting effects.

All these tests are based on salt spray exposures. Whether these same conclusions could be derived on an actual atmosphere exposure is to be seen. However, by comparing the control panels of the standard formulas with the known exposure data, we feel the results are valid. The salt spray test appears indicative of actual exposure results.

Development of Flat Wall Paint Scrubability Method of Test

New York Club

Reports and investigations within the paint industry indicated that several problems existed in determining the scrubability of flat wall paints, namely:

1. The present methods to determine these properties were highly controversial.

2. Present specifications and existing test methods were not adequate to detect quality and were difficult to duplicate with reliability.

3. Scrubability had to be differentiated from stain removal and studied as a distinct problem.

Theory

The committee's first attempt to express the washability of a paint film in terms of the number of strokes to reach an end paint, was ineffective due to the inability to obtain reproducable film thickness between operators using the standard film drawdown technics.

The committee working on this problem was of the opinion that film thickness could be ignored if washability could be stated in some other terms by studying the change in the optical properties of the film as the film was abraded. Relations between the incident reflected and emergent light from a thin homogeneous layer of absorbing and scattering material have been worked out in various forms. The one most readily applicable to practical measurement, however, is the formula derived by Kubelka-Munk. This formula can be interpreted as stating that the apparent reflectance of a paint film over a black surface varies as a function of its film thickness and as the coefficient of its light-scattering properties.

For example, using the theoretical formula of Kubelka-Munk, it can be shown that:

1. For any particular initial film thickness, the apparent reflectance of a paint film over a blank surface, varies linearly as the logarithm of the apparent reflectance.

2. As the initial film thickness decreases, the slope of the above curves increases *even though the rate of erosion is constant.*

Conclusions

The committee feels that although several areas of the test procedure require improvements, the technic and relationships mentioned will be of value to the individual operator interested in making relative product comparisons. However, additional work will be done toward the simplification of the test procedures, and standardization of equipment between laboratories. Caution should be observed in the interpretation of the results, particularly as regards the arbitrary end point. Further studies will also be required on colored or tinted films.

Trigg Foundation Elects Roy Anderson Chairman

Ernest T. Trigg Foundation last week elected Roy B. Anderson, chairman; Harry E. Stone, vice-chairman, and Eugene F. Cox, secretary and treasurer. The three officers will make up the foundation's executive committee and will also serve as directors.

Fred Weed, Robert Fay, W. I. Longworth and Frank L. Sulzberger were elected directors for three-year terms.

The board voted to continue the four scholarships in paint chemistry now being maintained at the North Dakota College of Agriculture at an annual cost of $600 per scholarship.

It was also decided that further investigation be made to see if other opportunities for advanced study in paint technology exist at other colleges, since the North Dakota institution has indicated it does not feel that it can attract additional students to the course.

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There was no further price action in pigments or gum last week. White lead moved in normal volume at the reduced quotations posted the previous week. This decline, stemming from the downtrend in lead metal, amounted to 1½ cent per pound in basic carbonate and 1 cent per pound in silicate. The former material was made 17½ cents per pound in carlots and 18½ cents in smaller shipments while the latter moved down to 16 cents in carlots and 17 cents in smaller shipments. The situation of red lead was steady and unchanged. This sales season, though, is apt to show a slight decline from the record level that was reached a year ago.

Price Trends

Advanced

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
101.30	101.30	100.31	100.30

For Current Prices See Page 9

With the passage of many weeks since the last decline in zinc metal, the price outlook in zinc oxide has grown steadier. Advices from the industry indicate that sales volume has been generally up to expectations but that in some instances it has felt the effects of the current downturn in economic activity.

Observers have noted signs of continued weakness in the copper market despite a steady surface during the past two weeks. Meanwhile, oxide is meeting fair demand at 43 cents per pound for black in lots of 100 to 1,999 pounds, 41 cents for Type II red and 41 cents for Type I red.

The plasticizer market has shown a consistently good tone this season, according to sources in the trade. With exception of the November 1 advance in nitrocellulose, the price structure has been unchanged. The tankcar price of dicotyl phthalate has been stable all year long at 28 cents per pound. This is taken as an indication that conditions of easy prices and heavy supply in this market are coming to an end. Quotation of dibutyl phthalate is expected to remain stable at 32½ cents per pound in carlots, 33½ cents in less than carlots and 30 cents in tankcars.

A recent report of the Lead Industries Association noted that August production of red lead and orange mineral totaled 2,366 short tons. Further details from this report are provided below under "Prime Pigments."

A final report on 1956-57 production of gum naval stores has been issued by the Department of Agriculture. Output of turpentine amounted to 644,930 barrels while rosin production amounted to 444,590 drums, a decline of two percent from the level reported for the previous crop year.

The revised prices announced a week ago in copal and dammar gum have held steady. These included Siam, down ½ cent per pound to 35 cents to 39 cents; Singapore No. 1, down 1 cent to 41 cents to 45 cents; and No. 2 down ¾ cents to 31¾ cents to 34 cents per pound.

Prime Pigments

Aluminum Pigments—This market has begun to constrict with the onset of cold weather, a factor that pretty well puts the roofing industry out of the picture in most parts of the country.

Current quotations still show the increases that were posted three months ago. Paste sells at 69½c. per pound for extrafine in drums and 47c. for standard grade. Listings for powder are $1.11½ per pound for extrafine and 81½c. for standard. Supply is amply available.

Chrome Colors — Production of chrome colors increased in the month of August, according to data issued by the Department of Commerce. The total for August came to 4,391 short tons, as compared with 3,189 tons for July and 4,499 tons a year earlier. The highest proportional increase was reported in chrome green, chrome yellow and iron blue; 441 short tons as against 254 in July. Chrome oxide green output increased to 415 tons from a July total of 355 tons. Production of chrome yellow and orange amounted to 2,255 tons, as compared with 1,556 the month before. The only material to decline in production was zinc yellow (zinc chromate) which decreased to 636 tons from 719 the month previous. Output of molybdate chrome orange increased in August to 514 short tons from 305 the month before.

Copper Oxide — Although still a bit shaky, the market for copper metal experienced no price action last week. As a result, current quotations of oxide were firmly maintained. Black oxide moved in fair volume at 43c. per pound in lots of 100 to 1,999 pounds, while red met fair interest at 41c. for type II and 43c. for type I, same basis.

Lakes and Toners—Output of peacock blue lake in August decreased to 91,235 pounds from a total of 150,588 pounds the month before, according to a report of the Tariff Commission. Production in August, 1956, amounted to 286,262 pounds.

Industry sources expect a few price revisions to be announced in December for implementation at the first of the year. In the intervening time, listings are expected to hold steady.

Lead Pigments—As reported in a recent publication of the Lead Industries Association, production in August of red lead and orange mineral totaled 2,336 short tons, with shipments amounting to 2,323 tons. As a result, stocks were virtually unchanged on September 1 at 2,826 tons. Lead oxide in process on September 1, the report indicated, involved 4,312 tons, as against 4,221 tons on August 1 and 4,684 tons on September 1 a year ago.

No further action was encountered on the price front after last week's announcement of lower quotations in white lead. This decline, stemming from the downtrend in lead metal, amounted to 1½c. per pound in basic carbonate and 1c. per pound in silicate. The former material was revised to 17½c. per pound in carlots and 18½c. in smaller shipments, while the latter moved down to 16c. in carlots and 17c. in smaller shipments. Quotations of red held unchanged at the lower levels posted several months ago. Although in the main the sales picture is active enough, the market reportedly is running a little behind the seasonal par.

Iron Blue—Paint trade buying interest is rather slow, but ink makers continue to order these materials in substantial volume. Domestic blues are listed at 52c. per pound in carlots on a delivered basis, 53c. in ton lots and 54c. for smaller shipments. Imported British iron blue lists at 48c. in carlots, 49c. in ton lots and 50c. in less than ton lots.

Zinc Pigments—The possibility of a price decrease in these materials has diminished appreciably with the passing of many weeks since the declines in zinc metal were posted. Although previously oxide prices had closely adhered to ups and downs in the metal, the connection was largely an artificial one, industry sources have pointed out. American process oxide is made directly from zinc ore and consequently does not depend for its supply on the status of the market for finished metal.

Natural Resins

Copal Gum—In the month of July, imports of copal gum amounted to 363,296 pounds, including 71,678 pounds from Indonesia and 176,533 from the Belgian Congo.

The local market last week showed a steady price front. For the previous week, the following changes had been reported: Congo No. 2 up 1½c. per pound to a range of 22c. to 24c. per pound; Manila C, down ¾c. per pound to 34c. to 38c., Manila DBB down 1c. to 24c. to 27c., and MA down 1¼c. to 18½c. to 22c. per pound. The advance in Congo was due to tight supply at the source, while decreases in the other materials stemmed from generally low buying interest in world markets, particularly Europe. Business here, though improved over the previous month, is still running on the spotty side. Sales are almost entirely restricted to prompt

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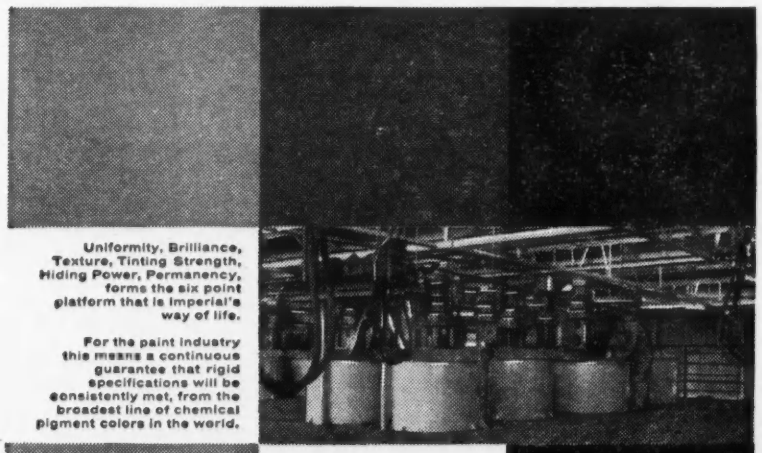

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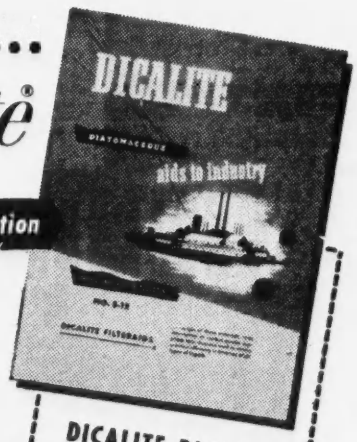

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Coatings Materials

needs. Supply is reported ample to take care of this kind of spot buying.

Dammar Gum—Imports of dammars during July totaled 177,561 pounds, including 43,552 pounds from British Malaya, according to a recent report.

Last week's trade held at a moderate level. The lower prices posted a week earlier were still in effect. These included Siam, down ½c. per pound to 35c. to 39c.; Singapore No. 1, down 1c. to 41c. to 45c.; and No. 2, down ¾c. to 31¾c. to 34c. per pound. Lower buying interest at the source accounted for this downward movement.

Naval Stores

Rosin, Gum

(USDA per 100 lbs.)

	Fri. Nov. 1	Mon. Nov. 4	Tues. Nov. 5	Wed. Nov. 6	Thurs. Nov. 7
Drums—					
M	$7.43§	$7.43	...	...	...
WG	7.78	...	...	$7.79	...
WW	7.93	...	...	7.93	...
Bags—					
G	7.20‡	...	...	...	...
M	...	...	$7.20	...	...
N	...	...	7.47	...	...
WW	...	...	7.70	...	...

Tankcars (for week ended November 1)—WW, $7.68; M or better, $7

Sales, USDA

400* 609* 750* 943* 320*‡

New York
(per 100 lbs., c.l., Friday)

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	.526§	...	...	...	...
Sales	16,000†	...	...	...	...

* Drums equivalent. † Gallons. § Average price. ‡ Or better. ‡ Export only.

A final report by the Department of Agriculture on 1956-57 production of gum naval stores last week noted that turpentine output during the crop year totaled 644,930 barrels, a figure about two percent less than the amount produced during the previous season. Gum turpentine production, which had been declining since 1949, dropped to 143,830, the fourth successive year of record low production, the report noted. Steam distilled output for the crop year, at 194,750 barrels, was also three percent less than a year ago, while sulfate turpentine production, on a refined equivalent basis, increased 1 percent to 305,310 barrels.

As a result of unfavorable weather and an increase in gum storage, gum rosin production through June of the crop year was 14 percent less than in the same months of the previous season, the Department reported. An upturn later in the season proved insufficient to offset the earlier decline, and as a result, the year's total, at 444,590 drums, was about two percent less than in the previous crop year.

Steam distilled rosin production was up to 118,000 drums during the first two months of the 1956-57 season but during the remainder of the crop year held at around 110,000 drums, with output for the season totaling 1,324,220 drums, as compared with the prior season's 1,369,440.

By and large, the figures contained in this final report showed very little revision from those that had been published in earlier reports.

Pine Gum—For the week ended October 26 the average price per standard barrel of crude pine gum was reported at $23.58, as compared with $23.91 the previous week and $26.23 a year ago. The volume of gum deliveries to plants amounted to 11,600 barrels, as against 12,949 the previous week and 14,519 a year ago. Content per barrel averaged 9.34 gallons of turpentine and 298.7 pounds of rosin. Gum grading percentages ranged as follows:—WW, 9; WG, 24; N, 28; M, 22; and K and below, 17.

Wilson-Martin Names Logan To Head Development Work

Wilson-Martin, Philadelphia, a division of Wilson & Co., has named Robert L. Logan new products development manager.

Mr. Logan will direct the development of a series of new fatty chemical products, expected to reach the market next year. Prior to joining Wilson-Martin, Mr. Logan directed pilot plant research operations at Kessler Chemical Company, Philadelphia.

Syntex Denies Charge

—Continued from page 4

Syntex' parent corporation, Ogden Corporation.

Dr. George Rosenkranz, chairman of the board of Syntex, S.A., stated:

"We have not yet received a copy of the complaint. From what little we have learned so far, it appears that the Justice department alleges principally that former activities in Mexico, by a Mexican corporation then owned solely by Mexican stockholders, which were fully in accord with Mexican law, have violated the antitrust laws of the United States. Syntex, S.A. and its related companies have never willfully violated the law.

". . . The Justice department, in seeking to impose the United States antitrust laws on past acts in Mexico, raises novel questions of international law.

"Syntex was acquired from its former Mexican stockholders by Ogden Corporation last year. Following the acquisition, Ogden publicly announced a policy of complete compliance with the United States antitrust laws, which we have attempted to follow in all respects."

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Soybeans Added to CCC List; Peanuts, Flaxseed Included

Soybeans have been added to the list of agricultural products available for sale during November by the Department of Agriculture from the stocks of the Commodity Credit Corporation. Supplies of soybeans, as available, will be sold by the department either for crushing or for export.

Other items on the list remain unchanged from those of October. They include: Nonfat dry milk, peanuts, grain sorghums flaxseed, gum rosin and gum turpentine.

Drug Trade Conference Sets Meeting for December

The annual meeting of the National Drug Trade Conference will be held December 2 at the Gramercy Park hotel, New York.

The four major topics to be discussed at the meeting will be: 1) labeling of hazardous household products, 2) manpower problems in the health profession, 3) government interference with traditional drug distribution and 4) trends in international drug regulations. Also included in the program will be a committee report on uniform drug legislation.

Bids Wanted

Aluminum ammonium sulfate, 45,000 lbs., tech., powd., as per fed. spec., Bid No. 1226, Nov. 18, Base Procurement Div., Eilson AFB, Fairbanks, Ala.

Ammonium hydroxide, 100,000 lbs., tech, Bid No. 1-974, Nov. 15, Gen. Stores Supply Office, 700 Robbins Ave., Phila. 11, Pa.

Chlorine, 10,000 lbs., tech., spec. C-12460, Nov. 18, Base Procurement Div., Davis Monthan AFB, Ariz.

DDT, 25,000 gals., emulsion concentrate clear liquid, Bid No. 216, Dec. 2, U. S. Navy Purchasing Office, 3rd Ave. & 29th St., Bklyn. 32, N. Y.

Ethylene glycol, 40 55-gal drms., inhibited, Bid No. 119, Nov. 20, Purchase Div., Atomic Energy Comm., Box 1213, Paducah, Ky.

Hydrochloric acid, 30,000 lbs., tech., Bid No. 5656, Nov. 19, Purchase Div., Bldg. No. 83, Naval Shipyard, Phila. 12, Pa.

Oxalic acid, 18,360 lbs., dihydrate, Bid No. 1-982, Nov. 15, Gen. Stores Supply Office 700 Robbins Ave., Phila. 11, Pa.

Paint, 6,000 lbs., pigment paste in oil white lead paint, spec. W-251c, Nov. 18, Gen. Services Adm., 7th & D Sts. SW., Washington 25, D.C.; 550 cans liquid paint drier, 1,500 1-gal cans enamel syn. paint thinner, 3,400 cans lacquer thinner, Bid No. 1161, Nov. 25, Gen. Services Adm., 909 First Ave., Seattle 4, Wash.

Potassium cyanide, 4,300 1-lb bots., ACS, gran., Bid No. 1-980, Nov. 15, Gen. Stores Supply Office, 700 Robbins Ave., Phila. 11, Pa.

Sodium metasilicate, anhyd., spec. OS-604A, Bid No. 1 GD-81655, Nov. 22, Gen. Services Adm., 250 Hudson St., N. Y. 13, N. Y.

Sodium thiosulfate, photo, spec. OS-616, type 1, Bid No. 58794, Nov. 18, Gen. Services Adm., 2306 E. Bannister, Kansas City 10, Mo.

Sodium tribasic, 125,000 lbs., tribasic, tech., dodecahydrate, Bid No. 1-994, Nov. 15, Gen. Stores Supply Office, 700 Robbins Ave., Phila. 11, Pa.

Zinc fluoride, 2,000 lbs., Bid No. J-1021061, Nov. 13, N. Y. City Dept. of Purchase, Municipal Bldg. (Open Market Bids), New York 7, N. Y.

Medical Survey

—Continued from page 7

from 58 percent of the American population to more than 70 percent."

"More significantly, the total percentage of private payments for medical care covered by Blue Cross-Blue Shield, insurance companies and other types of plans has doubled during the same period," Mr. Bugbee said. "The foundation believes that its 1953 study, which documented the strengths and weaknesses of voluntary health insurance for the first time on a nationwide basis, assisted in stimulating this tremendous growth."

The 1958 study, Mr. Bugbee explained, will provide comparisons with the 1953 data of medical expenditures, utilization of medical services and patterns of health insurance coverage. In addition it will collect a larger body of data on individuals not presently protected by health insurance and on families with high costs. "These more current figures should again assist in the continued growth of voluntary health insurance coverage," he said.

Fluorspar Imports Boosted By Harshaw in Cleveland

Fluorspar is being shipped from Spain to the port of Cleveland, Ohio, in increasing quantities. Harshaw Chemical Company says that so far this year, it has received a total of 9,700 tons in two shipments.

The fluorspar is shipped from Spain to Montreal, Canada, in one vessel, and is then trans-shipped to Cleveland. Increased import of fluorspar is part of Harshaw's expansion program.

The company currently has under way a million-dollar building program which includes a drying plant and storage facilities, at its Harvard-Denison avenue works in Cleveland.

'CBR' War Defenses

—Continued from page 4

tack, Gen. Creasy said. However, he conceded that a great deal more is to be done.

Gen. Creasy stressed again, as he has in past speeches, the importance of a general realization that "CBR" weapons post a hazard to our national welfare just as do nuclear weapons.

Also, he indicated, we must strip all mystery from these munitions so that our understanding of their nature will not be clouded.

Defense measures which the chemical corps has developed for military use, he continued, must, wherever feasible, be incorporated into our civil defense planning.

Finally, Gen. Creasy warned, we must achieve and maintain strength in the "CBR" warfare field to such an extent that an aggressor will not be tempted to use them against us.

He elucidated further on the import of "CBR" warfare in opposition to the use of explosives:

"What are some of the principal advantages of these systems—chemicals, biological, and radiological—which might lead an aggressor to select them?

"Many of you know that these agents have much in common: they cannot ordinarily be detected by the human sensory organs; they can circumvent—or in the case of radioactivity penetrate--normal means of protection against the more common explosive type munitions.

"They are flexible in that the user can control the effects upon the victims through the choice of an agent which may merely incapacitate, or which may kill. While other forms of warfare cause casualties by painful blows or wounds, the toxicological agents can often perform their debilitating action without the victim being aware of it.

"They cause no destruction of buildings or machines. While a rifle bullet or a high explosive munition loses its effectiveness within seconds after being set in action, the toxicological munitions may pose a health problem for varying periods of time ranging from minutes to days.

Russians Have

—Continued from page 7

the United States as a whole . . . including not only pharmaceuticals but also cosmetics and all the immensely varied items sold by American druggists which contribute to human comfort and convenience . . . then the gap between the Soviet Union and the United States is much greater than ten years. A few examples might be in order.

"There is no such thing yet as an electric shaver available to Russian customers in the Soviet Union. Russia has not yet produced any item in the form of the aerosol pack. There are no plastic bottles or dispensers anywhere on sale in the USSR. They can and did launch Sputnik first but the average Russian would probably be happier if he could trade Sputnik for a decent razor blade which he cannot obtain for love nor money."

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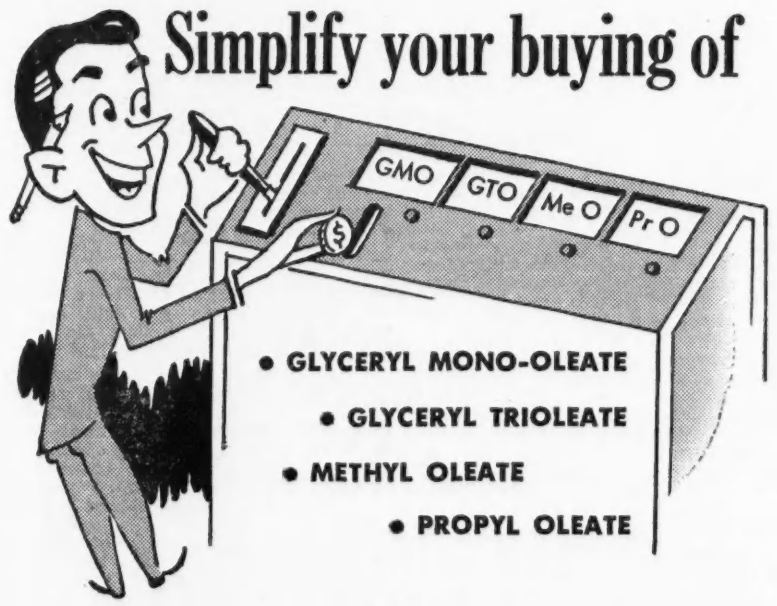

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Oils, Fats and Waxes

Tallow and greases continued to be the strongest materials in the oils and fats market last week. Trading took place in tallow at further advance which kept prices at the highest level since 1951. Offerings continued scarce and were held at fractional advances. Soapers were buyers at the higher level, but withdrew from the market when sellers kept boosting prices. Edible oils were steady, reflecting the strength of crude cottonseed oil. Offers of crude were scarcer due to reports of damage by rains to the crop in parts of the cotton belt which has retarded the delivery of cottonseed. Soybean oil also was stronger and lifted fractionally. Corn oil was offered sparingly and firmly held. Peanut oil was irregular, [illegible]mer. Lard was quiet and

Crude coconut oil [illegible]ecting the strength of co[illegible]o improved European demand.

Brazilian castor oil continued weak and dropped fractionally, reflecting the sharp decline of $10 per ton in castor beans. Domestic grades were unchanged with demand restricted to actual needs. Fatty acids were unchanged except lauric acid which was reduced 3 cents per pound. Crude menhaden oil continued inactive, but the market remained steady as available supplies were reported limited and maintained at former levels.

Price Trends

Advanced

Carnauba wax, crude, Parnahyba, 1c. per lb.
Cocoa butter, 9c. per lb.
Coconut oil, crude, ¼c. per lb.
Copra, $2.50 per ton.
Corn oil, crude, ⅛c. per lb.
refined, ⅛c. per lb.
Cottonseed oil, crude, ⅜c. per lb.
Refd., ⅜c. per lb.
Greases, ⅛c. to ¼c. per lb.
Soybean oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Tallow, inedible ⅛c. to ¼c. per lb.

Reduced

Castor beans, $10 per ton.
Castor oil, No. 1, Braz., ¼c. per lb.
Lard, cash, ⅛c. per lb.
Lauric acid, 3c. per lb.
Linseed meal, extracted, 50c. per ton.
expeller, $1 per ton.

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	Nov. 9, 1956
102.87	106.32	114.29	120.40

For Current Prices See Page 9

Vegetable Oils

Castor—Imported oil continued easy and lower. Light sales of No. 1 Brazilian were reported at 19¼c. per pound, tankcars, New York, for nearby delivery. Domestic grades were unchanged and moved in a hand to mouth manner. Castor beans declined sharply with trading reported on the basis of $120 to $125 per ton, f.o.b. Brazilian port.

Imports of castor beans and castor oil, at New York and Philadelphia last week were as follows

	Pounds	
Last week	2,909,400	2,258,000
Previous week	[illegible]	1,600,000
Corresponding week, 1956	94,500	940,000
Total this year	21,324,900	92,304,000
Corresponding period, 1956	37,449,510	66,835,000

Coconut—Crude was stronger with copra and advanced to 13c. per pound, tankcars, f.o.b. Pacific coast, November shipment; 12⅞c., first half December and 12⅝c., second half. The New York market also was higher at 14c., tankcars, spot and 13⅞c., late November.

Corn—Offers of crude continued scarce. Tankcars were sold at 14⅛c. per pound, f.o.b. mills, prompt shipment. Refined was advanced to 17.85c., tankcars, New York basis.

Cottonseed—Futures were stronger and advanced to new highs for this move on the New York Produce Exchange last week. Market reflected reports of damage by heavy rains to the cotton crop in major portions of the belt. This affected the movement of cottonseed and increased refining losses up to 20 percent in some instances.

Trading was moderate under general buying from commission house and shorts. Consuming interest in refined was light and spotty. Higher crude boosted refined grades and salad oil was lifted to 16⅞c. per pound, tankcars, New York, prompt delivery. Export business was still slow.

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, November 8, follow:

	Sales	Cents per Pound—High	Low	Close
Dec.	259	15.69	15.28	15.67S
Mar.	371	15.58	15.17	15.56@15.58
May	215	15.54	15.18	15.52@15.54
July	99	15.44	15.10	15.44S

Total sales and switches, 944.

News of the signing of the Spanish agreement to purchase vegetable oils for export was lacking, but the trade felt this business was closer.

Crude cottonseed oil advanced fractionally, with trading reported light. In the southeast, prices were nominal from 13¼c. to 13½c. per pound, tankcars, mills as to location; 13¼c., asked Valley; 12⅞c., Lubbock and 13¼c., Waco.

Government cotton crop November 1 was bullish and production was estimated at 11,788,000 bales, against 12,401,000 bales, October 1. Production in 1956 was 13,310,000 bales.

Export declarations for cottonseed oil for week endng November 1 were reported by the Census Bureau as follows: Crude, 1,509,140 pounds and refined, none.

Linseed—Demand was reported limited to fill-in needs, but the market remained steady at current quotations. Raw oil was held at 15c. per pound, tankcars, Minneapolis, November-January delivery; 15.2c., February-April and 15.4c., May-July, same basis. Improved demand was reported for delivery against former contracts.

Flaxseed—Market was unchanged steady. Trading still restricted.

Minneapolis—Crushers were not aggressive in the cash flaxseed market, most being comfortably supplied for nearby needs. However, there were instances where crushers reluctantly followed the lead of terminal interests and bought cash flaxseed at a basis of 3c. under Minneapolis December. Official closing prices were unchanged at $3.38 a bushel, spot, and $3.37 to-arrive. The buying based on futures market resulted in "edges" of 1c. to 3c. a bushel. Dullness in linseed oil and meal forced many buyers to the side lines but limited receipts were readily absorbed. Stacks of flaxseed as of October 1 were 28.4 million bushels, the smallest of record and compared with 44.9 million a year ago. The 1957 crop was estimated at 27 million bushels, the smallest since 1946 and slightly more than half the 1956 crop. Trades in the Minneapolis cash market totaled 14 cars, while to-arrive bookings amounted to 5 cars and 18,760 bushels. Arrivals for all accounts totaled 190 cars, compared with 183 a year ago. Shipments were 33 cars, against 46 last year.

Receipts and shipments of flaxseed, in bushels, were as follows:

	Receipts 1957-58	Receipts 1956-57	Shipments 1957-58
Past week	332,500	329,400	59,500
Since Sept. 1	8,014,000	10,241,000	580,250

Olive—Moderate volume of business was reported for prompt shipment from Spain and Greece. Spanish oil was quoted at $65 per 100 kilos, drums, f.o.b. shipping point. Greek oil ranged from $64 to $65 per 100 kilos, drums, c.&f. New York, prompt shipment. Demand for spot delivery was fairly active, with trading on the basis of $2.60 to $2.75 per gallon, drums, duty paid, depending upon quality.

Peanut — Crude was sold at 16c. for tankcars, f.o.b. southeast, and 16¼c., Virginia. Refined oil was named at 19¾c., tankcars, New York basis.

Soybean—Crude was stronger and advanced fractionally with cottonseed oil and allied markets. Crude was sold up to 11⅝c. per pound, tankcars, Decatur, November-December also for January-March.

Soybean Oil Futures

Sales and prices of crude soybean oil futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, November 8, follow:

	Sales	Cents per Pound—High	Low	Close
Dec.	4	11.63	11.59	11.63B
May	5	11.57	11.53	11.64@11.68

Total sales, 9 contracts.

Oils, Fats and Waxes

Crude, 978,080 pounds; refined, 434,250 pounds and further processed, 2,151,765 pounds.

Tung—Market remained steady for prompt and later shipment. Light trading was noted at 23¾c. per pound tankcars, New York, prompt delivery. Domestic oil was quiet and nominal around 22½c., tankcars, f.o.b. mills.

Miscellaneous

Cocoa Butter — Market was stronger and advanced to 94c. to 99c. per pound, as to quantity.

Copra—Trading was active and shipments advanced $162.50 per ton, c.i.f. Pacific coast. Offers were light and closely held.

Fats and Greases

Greases—Stronger tone featured this market. Prices were firm and higher. Yellow greases ranged from 8½c. to 8⅝c. per pound, tankcars, delivered, with most sellers holding at the higher figure. Choice white all hog was maintained from 9½c. to 9⅝c., same basis, as to seller.

Lard — Market was quiet and closed slightly lower. Cash lard was quoted at 11.40c. per pound, drums, Chicago. Export lard declarations for the week ending November, totaled 3,991,219 pounds.

Oleo Oil—Trading was light and spotty. Extra was quoted at 19c. to 19½c. per pound, drums, as to quantity. Oleo stearine was scarce and nominal from 15c. to 16c. per pound, same basis.

Tallow—Trading was more active at fractionally higher prices for all inedible grades. Bleachable fancy was sold at 9c. per pound, tankcars, delivered for soapers' account, while specialty buyers paid up to ¼c. more. Offers were scarce and firmly held at higher levels. Prime was moved at on the basis of 8¾c. to 8⅞c.; special, 8⅝c. to 8¾c. and No. 1, 8½c. to 8⅝c., same basis. Guaranteed fancy was maintained at 10¼c. per pound, drums, f.a.s.

Tallow Futures

Sales and prices of bleachable tallow futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, November 8, follow:

	Sales	High	Low	Close
		—Cents per Pound—		
Dec.	7	9.35	9.25	9.10@9.25

Total sales, 7 contracts.

Fish Oils

Cod—Slightly easier tone was noted in replacements. Fair sales were reported at 10¾c. per pound, drums, New York, ex-dock. Stocks on spot were nominal at 11½c., drums.

Menhaden—Buying interest lagged and market was entirely nominal. Limited stocks were well held despite quiet trading. Tankcars were named at 8¾c. per pound, works and 9c., f.o.b. steamer. Refined grades were in light request. Light pressed was held at 12c. per pound, tankcars, New York basis.

Production of crude menhaden in August totaled 2,675,676 gallons bringing the total for the first eight months this year ending with August to 9,536,112 gallons, compared with 15,773,068 gallons for the same period last year. Total production in 1956 amounted to 22,428,080 gallons.

Cake and Meal

Linseed Meal—Market unsettled and lower. Buying interest confined to fill-in needs.

Minneapolis—Demand for linseed meal was extremely slow as formula feed manufacturers held purchases to nearby requirements. Prices were 50c. lower for November shipment, down 80c. to $1 for December. Production was curtailed as one large crusher shut down flaxseed operations. Withdrawals were at a slower pace. Extracted meal, 34 percent protein, ranged from $44.50 to $45, November shipment, bulk, carlots, f.o.b. Minneapolis; $46.50, December; $50.50, January-March. Expeller, 32 percent, was $1 to $2 lower at $50.50 for first half of November, $52.50 last half.

Shipments of linseed meal, in pounds, were as follows:

	1957-58	1956-57
Past week	15,660,000	14,160,000
Since Sept. 1	131,760,000	142,440,000

Soybean Meal — Prices were resisting continuation of recent downward trend. Trading was limited on the heels of fair expansion in previous week. Production was active, with a hint here and there that it might be reduced if conversion does not improve. Great majority of modest new orders were of the hand-to-mouth type as supplies were exhausted. Soybean meal, 44 percent protein, was unchanged at $44.50 to $45 a ton, unrestricted, bulk, Decatur.

Soybean meal export declarations totaled 5,099 tons for the week ending November 1, it was reported by the Census Bureau.

Waxes

Consumers stepped up demand for most grades and good volume of business took place last week. This stiffened crude carnauba and prices of No. 3 North country Parnahyba advanced 1c. per pound to 72c. to 73c. per pound. No. 3 crude Ceara was firm at 70c. to 72c. as to quantity. Yellows were unchanged but firm. The Brazilian market continued strong with offers for shipment light and maintained about 2c. above the local market. Strength of crude beeswax strengthened refined and higher prices were pending.

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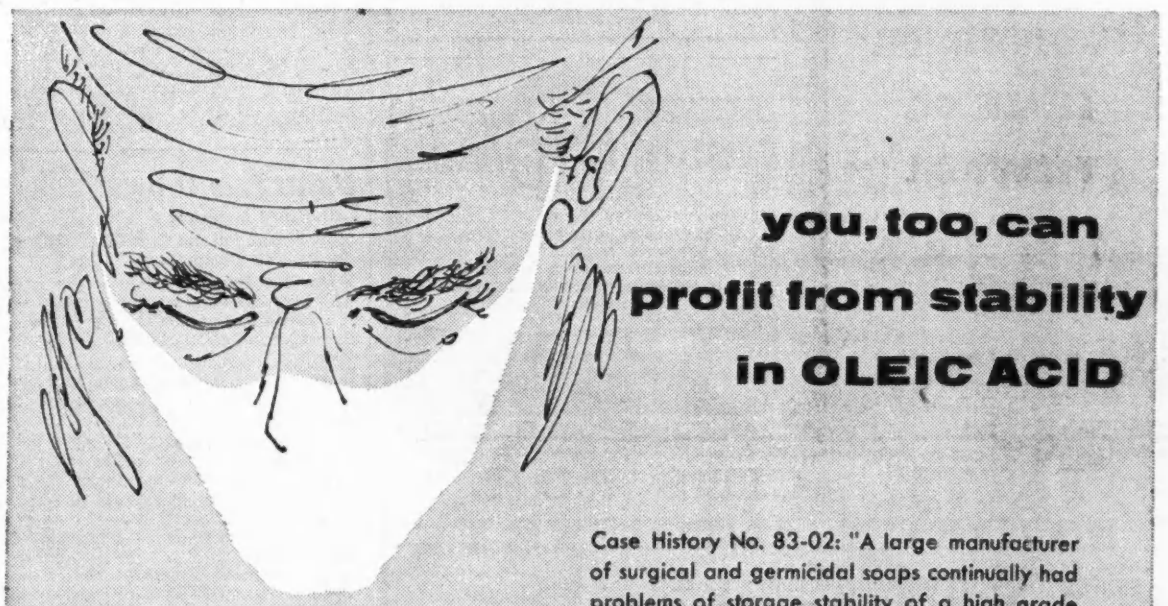
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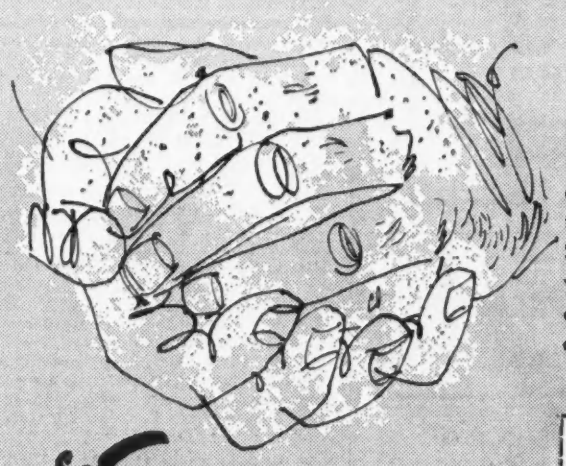

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Oilseeds, Cake and Meal Output: September

Statistics on the production of cake and meal and oilseeds crush have been compiled by the Bureau of Census, Department of Commerce, for the month of September. The data are as follows:—

Oilseeds Receipts and Crush

	Receipts	Crushings	Stocks Sept. 1
	Tons		
Castor beans	654	200	1,23
Copra	21,823	25,303	9,83
Corn germs	26,792	26,542	1,86
Cottonseed	504,250	346,062	418,19
Flaxseed	114,057	83,468	103,79
Olives	. . . .	. . . .	. . . .
Peanuts[1]	N.A.	N.A.	N.A
Soybeans	475,122	667,362	191,10
Tung nuts	. . . .	. . . .	. . . .
Other	4,833	8,341	[2] . . . .

Production of Oil Cake and Meals

	Production	Shipments and Transfer	Stocks Sept. 3
		Tons	
Cottonseed cake and meal	166,582	171,925	204,21
hulls	76,115	71,389	30,58
linters[2]			
First cut	25,501	16,750	63,54
Second cut	72,256	51,963	120,28
Mill run	9,627	4,475	12,54
Total	107,384	73,188	196,38
hull fiber	987	585	99
motes and grabbots	720	427	99
Soybean cake and meal	517,491	556,389	54,72
flour	8,938	8,950	1,60
lecithin	1,255	N.A.	1,49
Other cake and meal—			
Castor bean	108	213	29
Copra	9,023	9,148	70
Corn germ	11,844	11,959	68
Flaxseed	55,169	40,675	63,68
Olive	. . . .	. . . .	[5] . . . .
Peanut[4]	N.A.	N.A.	N.A
Tung nut	. . . .	. . . .	[5] . . . .
Other	5,727	7,542	10,76

N.A. Not Available.
[1] Data on peanuts collected by Agricultural Marketing Service, Department of Agriculture, and include reports by peanut shellers.
[2] Not shown to avoid disclosure of figures for individual companies.
[3] Average gross bale weight in pounds for September production: Total 624.4; first cut, 611.5; second cut, 629.3; and mill run 622.1.
[4] Data collected by Agricultural Marketing Service, Department of Agriculture.
[5] Included in "other" to avoid disclosure of figures for individual companies.

Hardt Sees Only

—Continued from page 7

cooperation for the benefit of all the people in both hemispheres."

Dr. Hardt expressed hope the congress will take no action "which could or will . . . diminish the sovereignty of individual countries in health affairs."

"In my opinion," Dr. Hardt said, "there should be no influence from this congress which could remove any responsibility for any country in this field."

In another address, Dr. Aims C. McGuinness, special assistant to Secretary Marion Folsom, of the Department of Health, Education and Welfare, said that each day of the past decade has made a new drug available to physicians—a total of nearly 4,000 products.

Under stimulus of research, he said, the flood is still swelling, the USA's drug manufacturers having multiplied their research ten times in twenty years.

Flu Vaccine Is Ahead of Schedule

Production of Asian flu vaccine to meet the current United States epidemic is somewhat ahead of schedule, the congress heard.

Dr. I. S. Danielson, manager of Lederle Laboratories, Pearl River, N. Y., said the Public Health Service, at an anti-flu strategy meeting last June 12 set a goal of not less than 60 million doses to be produced by next February 1 by the USA's drug manufacturers.

His figures indicated the goal will be more than met.

Dr. Robert P. Fischelis, secretary of the American Pharmaceutical Association, told the meeting that the reason a buyer can purchase so many things besides drugs in a drug store is that the public insists upon it.

At the same time, he said, the old-fashioned apothecary, who deals only in medicines, is on the increase in the United States.

Arthur C. Emelin, head of the J. B. Roerig & Co. division of Chas. Pfizer & Co., Brooklyn, N. Y., told the group that detailing is a recognized part of drug distribution in every part of the world where manufacturing pharmacy exists.

While primarily salesmen, Mr. Emelin said, detail men also post pharmacists on trends in prescription writing, conduct inventories for them and advise on prescription item promotions. They help out in emergencies "even at night and on Sundays" and explain their products to store personnel, Mr. Emelin said.

How to Pool Data

Dr. Louis C. Barail, consulting biochemist and toxicologist, of New York, explained how it is possible to pool non-confidential research data and thus save considerable laboratory research and pilot plant expenses.

Dr. Barail advocated simple methods based on his personal research experience and available to all, which will prevent duplications, assure coordinations of efforts and expenses and still protect the rights of all parties concerned. The Drug, Cosmetic and Chemical Institute of New York City was the first organization to give full cooperation to this coordination program, and its results have been most successful.

Other officers elected were: Vice president, Newell Stewart, National Pharmaceutical Council, New York; secretary-general, George B. Griffenhagen, division of medical sciences and public health, the Smithsonian Institution, Washington; and treasurer, S. Barksdale Penick, jr., S. B. Penick & Co., New York.

Morningstar Buys

—Continued from page 5

broadening of their entire products line for existing outlets and an approach to additional fields, it was pointed out.

The new facilities will be operated as the Haberland Division of Morningstar, Nicol, Inc., and will be benefited by an exchange of technical information with Scholten's of Holland.

The Haberland plant production is principally devoted to the manufacture of cold-swelling starch products for food, paper, textile and industrial fields. Typical end-products are precooked tapioca, potato and arrowroot starch.

The property, consisting of 50,000 square feet of manufacturing area on 7.2 acres with Erie railroad siding will be expanded, both in physical equipment and personnel. A research program on cold-swelling starches, now carried on at Morningstar's Hawthorne, N. J., laboratories, will be transferred to pilot and production status in the new Haberland facilities. Improved equipment is being designed to employ the most modern processing techniques in starch and natural gum treatment and chemical compounding.

The combined Morningstar and Paisley Products Division sales force, recently augmented by inclusion of Federal Adhesives Corporation personnel, now totalling over 100 sales and field servicing men, will be employed to introduce and service the Haberland product line.

The outlets for Haberland products will be essentially the same outlets now pursued by the Morningstar organization, it was explained.

American Metal

—Continued from page 3

Hans A. Vogelstein, president of the consolidated corporation.

Special meetings of the companies' common stockholders have been called for December 30 to act on the merger. If approved, the merger would become effective at the beginning of 1958.

Under the merger agreement three shares of American Metal Climax common stock would be issued for each of 2,355,000 outstanding shares of Climax common stock but no shares would be issued for the 225,000 shares of Climax common stock now owned by American Metal.

None of the 7,088,448 outstanding shares of American Metal Common stock would be changed by the merger except for a change from no par value to $1 par value. American Metal's outstanding 67,236 shares of 4½ percent preferred stock and $12,750,000 of funded debt would not be affected by the merger. Climax does not have any preferred stock or funded debt.

BRILL EQUIPMENT CO.

KETTLES, REACTORS, CONDENSERS, EVAPORATORS, TANKS

1—Artisan 450 sq. ft. Stainless Steel, Single Effect Evaporator, complete with piping, receiver, separator and condenser.
1—1,000 gal. nickel clad, jacketed, agitated Reactor.
1—600 gal. 316 S.S. jacketed, agitated Reactor 200# internal pressure, 90# jacket pressure.
1—Glascote 500 gal. Glass-Lined, jacketed, Reactor.
2—Pfaudler 250 gal. Glass-Lined, jacketed, agitated Reactors.
1—Pfaudler 100 gal. 304 S.S. jacketed, agitated, Reactor, 75 psi.
3—3500 gal. 304 S.S. jacketed, agitated Tanks 9'x7'.
1—9,400 gal. 316 ELC, Horizontal Tank, 8½' dia. x 19'.
1—12,000 gal. rubber lined Horizontal Tank, 10'6" x 20'.
1—3500 gal., 304 S.S. Horizontal Tank 5'6"x16'.
5—1000 gal. Stainless Steel Clad, Vertical Storage Tanks.
3—Stainless Heat Exchangers, 1220, 947 and 500 sq. ft.
4—Karbate Heat Exchangers, 70 and 26 sq. ft.

CENTRIFUGES

5—Bird 32" x 50", 316 S.S. solid bowl, continuous, fume tight, 60 HP motors, New 1953.
2—Bird 18"x28", 36"x50" steel, continuous, solid bowl.
2—Bird 18" x 28", 24" x 38" Stainless Steel, Continuous, solid bowl.
1—Sharples PY-14 Super-D-Canter, 304 S.S.
1—Bird 40" Suspended rubber covered, imperforate basket.
2—Bird 40" Suspended 347 S.S. perforated basket, TEFC motor.
1—AT&M 36" center-slung, rubber covered, perforated basket.
1—Tolhurst 32" Suspended, 304 S.S. perforated basket.

FILTERS

2—Feinc 5'x6' Stainless Rotary Vacuum.
1—Eimco 18" x 12", 316 S.S. Rotary Vacuum.
1—Oliver 8'x10' Monel Rotary Vacuum.
2—Sparkler 33-S-28 Pressure Filters, 150 sq. ft., 304 S.S.
1—Sparkler 14-D-4 Pressure Filter, 3.2 sq. ft., 304 S.S.
1—#12 Sweetland Filter, 48 leaves, 3" centers, 640 sq. ft.
2—#10 Sweetland Filters 27 leaves, 4" centers.
2—#7 Sweetland Filters, 20 leaves, 4" centers.
4—Shriver 36"x36", 30"x30", c.i. Filter Presses, P&F, washing

DRYERS

1—Devine Vacuum Shelf 20—40" x 43" shelves.
4—Devine Vacuum Shelf 17, 16 and 12—40" x 43" shelves.
4—Drying System, Inc. steam heated Tray Dryers, 95 sq. ft.
2—Buflovak 42" x 120" Atmospheric Double Drum.
2—Devine 4'x9' Atmospheric single drum.
3—Stokes Rotary Vac 4'x20', 30"x8', 18"x42".
3—Louisville Rotary Steam Tube 38"x25', 6'x40', 6'x50'.
3—Bartlett & Snow Rotary 6'x30', 7'x30', ½" shell.
1—Christie 70" x 40' Hot Air Rotary Dryer, ⅜" shell.
2—Link Belt 5'2" x 20', 6'4" x 24', Steel Roto-Louvre Dryers.

MIXERS

1—Baker Perkins No. 16 TRM, 150 gal., jacketed sigma blades, Vacuum, 60 HP motor.
1—Baker Perkins #15USE, 100 gal. jacketed, Stainless Steel, Vacuum, 75 HP.
1—Baker Perkins No. 15 VUMM, 100 gal. jacketed, dispersion blades, 100 HP motor.
5—Day "Cincinnatus" double arm 250 and 100 gals.
2—Porter 4½ gal. jacketed, sigma blade.
1—Baker Perkins 2 gal. 304 S.S. sigma blades, 2 HP motor.
5—Steel, jacketed, Powder 50, 225 and 350 cu. ft.
1—Day D10, 304 S.S. Powder Mixer, 7½ HP motor.

MILLS

1—International 6'x7' porcelain lined Pebble Mill, 30 HP motor.
3—Patterson, Abbe, 6'x8' unlined Ball Mills.
2—Abbe 5'x6' and 4'x5' Silex-lined Pebble Mills.
1—#2DH Mikro Pulverizer, 10 HP motor.
1—National 6"x12" Two Roll Mill, motor driven.
5—Jeffrey Hammermills 20"x12", 15"x8", motor driven. NEW.
1—Williams 30 HP Ball Bearing Hammermill.

MISCELLANEOUS

3—25 ton Freon Refrigerating Units.
10—Orville Simpson Double Deck Rotex Sifters, 60"x84", 40"x84".
3—Robinson Gyratory Sifters 30"x104", triple deck.
7—Stokes DD2, DS3, D3, B2, "R" and "F" Tablet Presses.
10—Nash Vacuum Pumps H7, H6, H5, L5, H4, TS7, #4, #2, AL-572.
2—Stokes #412G, 412B Vacuum Pumps, motor driven.
15—Chlorimet, Durimet and Duriron Centrifugal Pumps, 1½" to 5".

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A. T. & M. 26" Stainless Steel under driven Centrifuge; perforate basket.
Tolhurst 36" Stainless Steel Suspended Type Centrifugal; Perf. Basket with S/S Plow.
Tolhurst 40" Rubber Covered Suspended Centrifugals with Monel Plows.
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Sharples C27 Super D Hydrator; Type 316 Stainless; 30 HP Expl. Motor.

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Rotary Cutters by Abbe, Ball & Jewell, from Lab. Size to Size No. 1-15 HP.
Mikro Pulverizers from Bantam size in Stainless up to No. 4 Model.
Fitzpatrick Model K 7 Comminutating Mill in Stainless with 20 HP motor.
Patterson Type DJ Unlined JACKETED Ball Mills; 54" x 42".
Patterson 6' x 6' Buhrstone Lined Pebble Mill; cooling Jacket; 25 HP.
Patterson Buhrstone Lined Model D Pebble Mills; 6' x 5' and 6' x 8'.
International Porcelain Lined X24 Pebble Mills with 50 HP Gear Motors.
Gates Tube Mills 5' x 22' with manganese steel liners.
Hardinge Conical Ball or Pebble Mill; 10" x 36"; Silica Block Lining.
Sperry 36" ALUMINUM Filter Press; 33 Chambers; 4 eye with Hydraulic Closing.
Shriver STEAM JACKETED 36" Cast Iron Filter Press; 29 Chambers.
Five Stainless Steel Sperry Filter Presses; 12" and 18".
Shriver 42" Cast Iron 4 eyed Closed Del. Filter Press; 39 chamber.
Oliver United Monel Pressure Pre Coat Rot. Vac. Filter; 3' x 2'.
Feinc Stainless Steel 5' x 6' Rot. Vac. Filter; String Discharge; complete.
Ertel Stainless Steel Filter EDB 20 for Blood, Plasma, etc. up to 10 Lt. Per M.
Sparkler Model 33D7 Filter with Scavenger; 2000 gal. per hr.
Mojonnier Stainless Steel Vacuum Pan; 6' x 12' with S.S. Condenser Coil.
Four Stainless Steel Horizontal Tanks; 6' x 34'; 7000 gal. Dished Heads.
Blaw Knox Stainless Steel Resin Still or Autoclave; 7'6" x 7'6"; Jacketed.
Two Stainless Steel 5000 gal. Pressure Tanks; 10' x 6' with Agitators.
A. O. Smith Type 347 Stainless Autoclave; 1500 lb. ASME; 1200 gal. Agitated.
Stainless Horizontal Oval 4'x6'x21' Tank; Milk Type; 3500 gal. capacity; like NEW.
A. O. Smith Stainless Lined 20,000 gal. Pressure Tanks; 10' x 30'.
5000 gal. Heavy Duty Aluminum Tanks; 8' x 12' Vertical ASME Heads.
Pfaudler Glass Lined Jacketed Reactors; 500-1000 gal.
Lancaster Stainless Lined Rotary Reactor; 1700 gal. 300 PSI ASME; 50" x 17'4".
Western Precipitation Helo-Flight Desolventizer or Chlorophyll Extractor.
8 Stainless Steel Heat Exchangers or Condensers up to 1000 sq. ft. surface.
Barnstead Stainless Steel Steam Heated Water Still; 100 gals. pr hr.
Stainless Steel Jacketed Vacuum Still; 425 gal.; 56" x 50".
Aluminum Bubble Cap Column 60 Plates; 27½" dia. x 36'; 11 Sections.
Buffalo Fractionating Column with Still Pot; Column 42" x 24'9" with 28 Bubble Caps.
Lummus Copper Alcohol Recovery Column; 18" x 21'; 5 sections.
Barnstead Stainless Steel Steam Operated Water Still; 100 gal. per hr.
Double Drum Dryers with Accessories; 28" x 60"; 32" x 72" and 42" x 100".
Buffalo 5' x 12' Vacuum Drum Dryer, Brand New, Unused.
Hersey Rotary Gas Fired Counter Current Atmospheric Dryer; 5' x 26'; S.S.
Squier Stainless Clad Rotary Atmospheric Dryer; 30" x 20'; Hexagon.
Stokes Jacketed Rotary Vacuum Dryer; 34" x 10' Model 59 AB; accessories.
American Two Door Jacketed Sterilizers; all sizes up to 36" x 42" x 84".
2 Plastic Extruders Royle No. 3 and NRM 2½" Screw-Oil Heated-Controls.
Stokes Rotary Tablet Presses; RB2; BB2; RD3; DDS2; Colton No. 10-35.
Baker Perkins Stainless Dbl. Arm Dispersion Mixer Size 15; 100 Gal. Working cap. 75 HP.
Baker Perkins (W. & P.) Heavy Duty Double Arm Jktd. Mixers to 300 gal. sizes.
J. H. Day Cincinnattus 1000 gal. Stainless Steel Mixer; Jktd., 75 HP motor.
Readco 750 gal. Double Sigma Arms Jacketed Mixer with Vac. Bowl; 200 HP.
Werner & Pfleiderer 1200 gal. Universal Mixer; Sigma Arms; Jktd., 150 HP.

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1—42" x 120" American Double Drum Dryer.
3—Davenport #1A Dewaterers.
1—3,000 Gal. UNUSED Stainless Steel Vessel, 5' x 20', T316, ASME 100 lbs.
1—9' x 30' Rot. Hot Air Dryer, St. St. lined.
1—Sharples C-20 Super-D-Hydrator T316 St. St.
1—Louisville 6' x 45' rot. steam tube dryer.
1—A.T. & M. 48" suspended centrifugal st. st., perf. basket.
5—4' x 30' rot. hot air dryers

FILTERS — ROTARY VACUUM

2—Feinc 5' D x 6' F, string discharge, T304 St. St. contact parts.
2—Oliver 3' D x 6' F, T316 St. St.
1—Oliver 5'3" D x 3' F, Precoat, pressure housing, rubber lined.
1—Oliver 5'3" D x 8' F, Precoat, Steel. Unused.
1—Feinc 6'6" D x 6' F, String Discharge, steel.
2—Eimco 10' D x 12' F, rubber covered.

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Plate & Frame

1—Stainless St., 12", 3 ch. Sperry.
1—Aluminum, 15" Sperry, 29 ch. 1-eye, open dely.
1—C.I. 7", 21 ch. 2-eye, cl. dely.
2—C.I. 24" Sperry, 30 ch., 2-eye, cl. dely.
8—Cast Iron 30" Shriver, 25 — 46 chambers, 1, 2 or 3 eye, open delivery.

FILTERS—Pressure Leaf

1—Niagara #510-28 Type 316 Stainless Steel, 21 leaves, 510 sq. ft.
3—Sparkler #33-S-28, T304 St. St. plates, 151 sq. ft., steel tank.
1—Sweetland #12—72 leaves.
2—Sweetland #7—40 leaves.
1—Sweetland #5—20 leaves.
1—Industrial 18 x 48-RR, Rubber lined, 60 sq. ft., rubber leaves.
1—Klein #2 Type 304 Stainless Steel, 11 leaves, 97 sq. ft., with closed feeder.
8—Bowser, Butler, Industrial & Klein—from 7 sq. ft. to 140 sq. ft.

FILTERS — MISCEL.

2—Sharples 16V Super Centrifuges, Stainless Steel.
5—Louisville 36" wide 8-Roll Continuous Filters.
2—International Single Disc, T304 Stainless Steel, #3—24" dia. and #5—33" dia.
1—Alsop SD-6-WR-10, Jacketed, T304 St. St.
1—Enzinger-Union 26 plate Brass Filter with Packer.

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Autoclaves, Blenders, Centrifugals, Columns, Dryers, Dewaterers, Evaporators, Exchangers, Filters, Kettles, Mills, Mixers, Presses, Tanks.

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750 gal. Pfaudler Glass lined jacketed & Agitated Reactor.
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30" Fletcher (SS) Suspended Centrifuge.
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Sweetland Filter #10 with 27 steel bottom drainage leaves.
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9' x 120' Rotary Kiln, complete.
502-16 Roto-Louvre Dryer with oil burner blowers and controls.
705-24 Roto-Louvre Dryer with aerofin coils, blowers and controls.
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Stokes DD2 Tablet Presses (2).
Komarek Greaves Briquetting Machine.
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1—Allbr. Nell 4x9 Atmos. Drum Dryer.
1—Buffalo Vac. Drum Dryer, 24"x20"

CENTRIFUGALS AND CENTRIFUGES
8—Centrifugals, 12", 20", 26", 30", 40" & 48" Steel, Copper, Stainless & Rubber.
6—Sharples No. 5A Stainless & #6.
2—De Laval Multi Clarifiers 300 & 301.

FILTERS
#2 Sweetland Filter, 12 Stainless covered leaves & other sizes. Oliver Filters.
1—Vallez Filter #49 with 41 Stainless covered 44½" dia leaves.
Sperry and Shriver 6" to 36" iron & wood.
Ertel 6 & 10 disc Filters 12¼" dia.

KETTLES AND TANKS
3—100 gal. Stainless Clad Jack. Kettles.
Dopp 350 gal. Agit. Jack. CI Vac Kettle.
2—Impreg. Units 30" & 36" dia. complete.
6—Jack. Steel Kettles up to 3000 gals.
1—250 gal. Lead Lined Kettle.
Stainless, alum., copper, glass lined, lead lined and steel kettles and tanks.

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Pebble Mills 24"x30", 30"x30", 30"x34", 30"x42" 4'x5'. Also jar mills.
1—#00 Raymond Mill, 30 HP complete.
2—#0000 Raymond Mills.
Bauer 24" Hammer Mill.
Schutz-O'Neill #1 & 20" Pulverizers.
Williams #3 & 2XX Hammer Mills.
Ball & Jewell Rotary Cutters Lab & up.
Jeffrey 18"x18" single Roll Crusher.
2—Robinson 18" & 22" BB Attrition Mills.
1—Lehman 4 roll WC., 12"x36" Steel Mill.
4—Lehman & Kent 3 Roll Steel Mills, 9" x22", 12"x30", 16"x40".
1—Monarch 9"x24" Steel Roller Mill, 3 pr. high. Also 7½x20, 4 Roll.
Flouchin 18"x30" 4 Roll Granite Stone Mills.
2—U.S. & Premier 1½ HP Colloid Mills.

MIXERS, SIFTERS & SCREENS
Day Imperial 75 & 150 gal. Jack. Mixers.
Day Jumbo, 700 gals., Mixer.
Lancaster 6' dia. Vert. Mixer, 25 HP.
Kent 3 HP, continuous Dry Mixer.
Baker Perkins, 50 & 100, gal. Jack. Mixers.
Blystone 3000# horiz. Spiral Mixer.
Read 50 & 100 gal. double arm Mixers.
Read 80 qt. vert. Mixer, 3 speed.
Day Stainless 40"x84" Roball Sifter.
Tyler 3'x5' Vibratory 2 deck Screen.
Robinson 20"x48" Gyro Sifter, 3 opening.
10—Dry Powder Mixers, 50 to 3,000#.
3—Day 8, 15 & 40 gal. Pony Mixers.
10—Portable Elec. Mixers, ¼ to 3 HP.
6—Lead and Paste Mixers to 150 gals.

MISC. AND SPECIALS
Stokes RDS3 Rotary Tablet Machine.
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3—Stokes and Day Powder Fillers.
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1—Howe Mogul barrel and bag packer.
2—Worth 12"x12"x12" Vac. Pumps.
8—Devine Buffalo, Stokes Vac. Pumps.
Boilers—Gas & Oil, conveyors & Elev.
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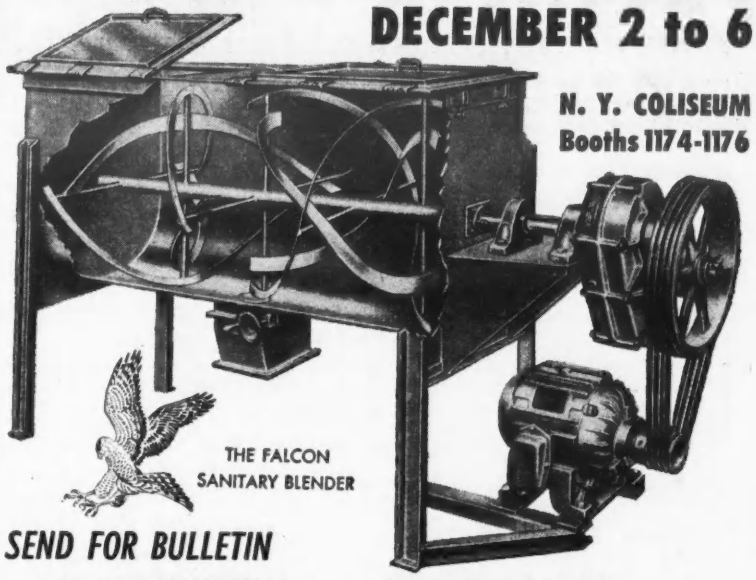

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MAIN ITEMS

1—Swenson 5 Body, Quadruple Effect, Evaporator forced circulation and film type, 12,975 sq. ft. heating surface, C. I. bodies, copper tubes.
1—Arnold 6' dia. 316 S.S. Evaporator, rapid circulation, film type, 325 sq. ft.
1—Harris 3' dia. 316 S.S. Evaporator with steam coils.
3—American 42" x 120" Double Drum Dryer, Model 42A, with Screw Conveyors, Reeves Variable Speed Drive and 10 HP XP motors.
3—Louisville 6' x 50' Rotary Steam Tube Dryer having 27—4½" and 27—3" tubes with Falk reducer and 20 HP motor.
1—Bird 36" x 50" Steel, solid bowl, continuous Centrifuge.
1—Bird 18" x 28" Stainless Steel, solid bowl, continuous Centrifuge.
1—Bird 40" suspended, rubber covered, perforated Centrifuge, 25/10 HP, 1200/600 rpm.
1—AT&M 42" suspended, Stainless Steel, perforated basket Centrifuge, 25/7½ HP, 1200/600 rpm motor.
1—AT&M 42" suspended, Stainless Steel, perforated basket, Centrifuge, 40 HP, 1200 rpm motor.
2—Tolhurst 40" suspended, steel, perforated basket, Centrifuge, 15/7½ HP, 900/450 rpm motors.
2—5,000 gal. 316 S.S., 10' x 8', Vertical Tanks.
1—2,000 gal. 304 S.S., 8'8" x 5', Vertical Tank, water jacketed, paddle agitator, 5 HP motor.
1—5,500 gal. rubber lined 10' x 9', Vertical Tank.
1—10,000 gal. Aluminum 10' x 16' Horizontal Tank, ½" shell.

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1—Link Belt Stainless Steel Roto Louvre Dryer, Model 207-14.

3—Link Belt Steel Roto Louvre Dryers, Model 207-10, 310-16 and 502-3.

1—Oliver Horizontal 3' Pilot Plant Filter, New.

1—Stainless Steel Rotary Dryer, 3' x 12', complete.

2—Louisville Rotary Dryers, 6' x 45', complete.

2—Louisville Rotary Steam Type Dryers, 6' x 50' complete.

2—Buflovak Double Drum Dryers, 42" x 120".

1—Stokes Double Drum Dryer, 5' x 12'.

2—Feinc Stainless Steel Rotary String Filters, Size 5' x 6'.

1—Feinc Stainless Steel Rotary String Filters, 3' x 3'.

1—Baker Perkins Stainless Steel Double Arm Jacketed Dispersion Blade Mixer, 100 gallons, 75 HP motor.

1—Baker Perkins #16 TRM 150 gallon Jacketed Double Arm Sigma Blade Vacuum Mixer, 60 HP motor.

1—Readco Steel Jacketed Double Arm Sigma Blade Vacuum Mixer, 25 gallons capacity.

1—Stainless Steel Horizontal Ribbon Blender, 65 cu. ft.

1—Baker Perkins Stainless Steel Double Arm Sigma Blade. Jacketed Mixer, 30 gallons.

1—Leadder Stainless Steel Jacketed Horizontal Ribbon Blender, 40 cu. ft.

1—Sturtevant Stainless Steel Dustless Rotary Blender #7, 70 cu. ft.

1—Readco Stainless Steel Horizontal Ribbon Blender, 285 cu. ft. with 30 HP motor.

1—Vulcan Type 316 Stainless Steel Bubble Cap Column, 3' x 31', with 30 trays.

1—Stainless Steel Vertical Tank, 12,000 gallons.

1—Stainless Steel Jacketed 400 gallon Kettle, with Turbo Agitator and drive.

1—Combustion Engineers Steel Jacketed Autoclave, 1600 gallons, 150# Jacket, 600# internal.

1—AT&M Stainless Steel Link Suspended Centrifuge with 28" Perforate Basket.

2—Sharples 316 Stainless Steel Centrifuges, Model D-2 (New).

5—Davis Engineers Type 347 Stainless Steel Heat Exchangers, 200 sq. ft. each (New).

1—Stainless Steel Heat Exchanger, 524 sq. ft.

1—Stainless Steel Heat Exchanger, 40 sq. ft.

2—Combustion Engineers Water Tube Package Boilers, 200 HP, 275# pressure.

4—Type 317 Stainless Steel Heat Exchangers 892 sq. ft each, 200 PSI, ASME Code.

1—Komarek Greaves Briquetting Machine with 50 HP motor.

1—Williams 4-roll Mill, Complete.

1—Raymond 3-roll High Side Mill, complete.

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PLANT LIQUIDATION
LEXINGTON — OHIO

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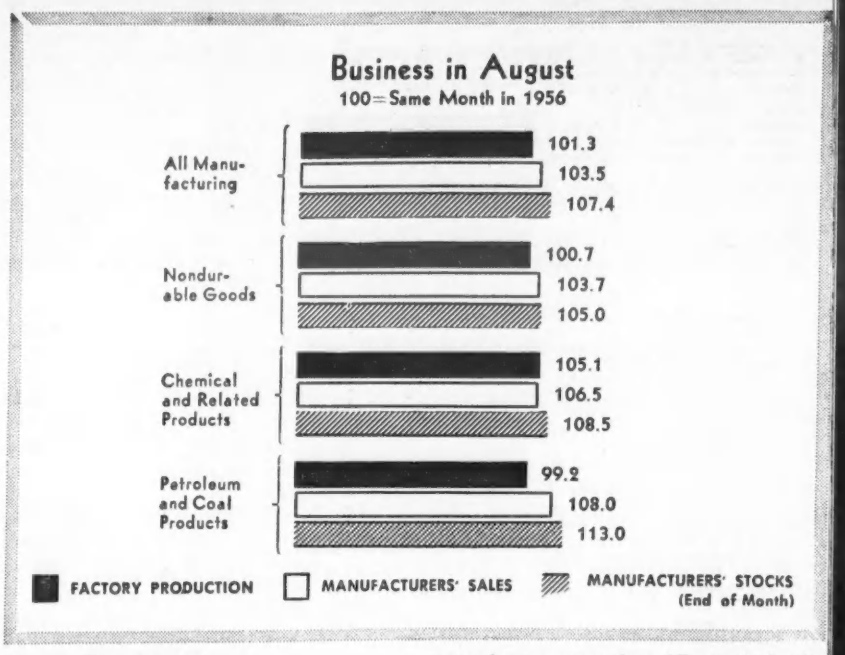

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Drug Trade Is Winner

—*Continued from page* 3

certain at this time. The department made no immediate announcement of its plans. But there are ample precedents in which a loss in a criminal case has not deterred the department from taking up the civil action.

From a legal standpoint one big difference between these two types of cases is that one cannot be appealed by the government and the other can. The government cannot appeal a dismissal of a criminal action to a higher court, but it can appeal an adverse ruling in a civil antitrust case.

Gum Rosin, Turps

—*Continued from page* 5

curtail operations, having no guaranteed minimum return.

Offsetting this problem, however, is the fact that there is a current sustained demand for pulpwood in the south which did not exist in the past.

This demand, he pointed out, has brought about steadily increasing prices for pulp wood and also for other timber products, and these stumpage prices show no signs of weakness.

As a result, producers who work their own timber may reduce or discontinue turpentining operations which, without government support, will afford only an uncertain price outlook.

Speaking at the same meeting, Harley Langdale, jr., president of Langdale Company, recommended a vigorous research program as a method of keeping gum naval stores healthy.

In a speech entitled "Gum Naval Stores —Today and Tomorrow," Mr. Langdale said that the salvation of the gum naval stores industry lies in more and more research.

Forest Service Is Thanked

He congratulated the United States Forest Service's Lake City, Fla., station, and Department of Agriculture's Olustee, Fla., installation for a good job well done, but maintatined that there is a great need for expansion at both places.

Too often in the past, Mr. Langdale contended, there has been great and unjustified willingness to sound the death knell of the gum and steam distilled segments of the naval stores business.

Mr. Langdale forecast that these industries, due to their willingness to adapt themselves to change, will still be going strong twenty years and more from now.

Improved methods of deriving pine gum have helped the gum farmer to retreat gracefully during the past twenty-five years in the face of competition from industrial sources of naval stores, Mr. Langdale said.

These improvements include spraying of exposed wood with a sulfuric acid solution to increase gum flow; cups and gutters attached with double-headed nails to facilitate removal when the tree is worked out; selective cutting and reforestation, and development of new breeds of trees with higher yield contents.

Nitrogen Future Rosy

—*Continued from page* 3

Far East. Aikman says that owing to poor crops during the last harvest, consumption is not up to expectations, particularly in China, India and Pakistan.

Exports have consequently been reduced, and the foreign exchange available for new imports of nitrogen and other fertilizers has lessened. It is obvious to Aikman, however, that with the increasing population in all these countries, this can only be a temporary setback, since without the requisite amount of fertilizers, they will be unable to feed their people.

In Japan, production is increasing, especially in urea. The total for the year ending June, 1957, was estimated at 745,000 tons of nitrogen, and consumption, including industrial, 640,000 tons, leaving 105,000 tons available for export.

For 1957-58, production is estimated at 860,000 tons, and consumption, 660,000 tons, so exports might be 200,000 tons. For 1958-59, figures might rise to 880,000, 680,000 and 200,000 tons, respectively.

European production capacity has increased even more than Aikman had estimated in its last report. There is certain to be a big surplus in the next few years unless output is further curtailed by agreement.

Normally, a great deal of production would go to the Far East, but it is unlikely that these markets in the near future can absorb the surplus, with increasing competition from the United States and Japan.

Calcium Ammonium Nitrate

Six months ago, there was a large surplus of calcium ammonium nitrate. Aikman finds, however, that this has now been largely disposed of to Yugoslavia and countries in eastern Europe.

The aftermath of the Suez crisis was not very influential in helping sales, Aikman says. Although there was a substantial drop in freights from Europe to the east, lack of money has not resulted in many new purchases, and is merely enabling the purchases made in advance to be gradually liquidated.

The following table represents Aikman's ideas of production and consumption of nitrogen in 1958-59, in metric tons.

	Production	*Consumption*
Europe and Egypt.....	5,095,000	4,040,000
United States.....	3,100,000	3,100,000
Canada, South America,	550,000	350,000
Asia	1,325,000	1,640,000
Other countries.....	120,000	370,000
Total	10,190,000	9,500,000

The above figures do not include the Soviet Union. Aikman estimates that the latest figures showing production there placed the total at 1 million tons for 1956-57. Consumption was probably more, owing to imports from East Germany.

Chilean nitrate output suffered due to strikes this year, and production up to June only amounted to 185,000 tons N. Increasing costs have forced shanks producers to close down, and virtually all production is now coming from three mechanized plants.

Aikman points out that costs this year have increased, and profits will probably be negligible. With the large expenditure on increasing plants, however, it is expected that profits will again be normal in a year's time.

Further relief is expected owing to considerable profits on potassium nitrate and other byproducts of Chilean sodium nitrate and other byproducts of Chilean nitrate output during the next few years.

CCDA-CMRA Texas Parley

—*Continued from page* 7

will speak on the Gulf coast petroleum industry in 1965.

Dr. Wayne Kuhn, of Beacon Laboratories, Texas Company, will forecast volume and value of hydrocarbons consumed in manufacture of petroleum products in the area in 1965.

A panel discussion will be conducted with J. R. Mares of Petro-Tex Chemical Corporation as moderator. Forecasts for demand for products in 1965 will include: Ethylene, Kendall Greene, Gulf Oil Corporation; propylene and butylene, H. A. Mitchell, Shell Chemical Company; aromatics and hydrogen. R. E. Pfennig, Humble Oil Company; and butyl rubber, butadiene and other rubber chemicals, James G. Park, of Enjay Company.

Michel T. Malbuty, co-author of the book "Spindletop" will be the dinner speaker November 20. He will give his personal views on prospects for the petroleum and chemical industries on the Gulf coast.

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experimentation, and half-measures. This is the democratic way, and it is the best way."

FARMERS AT THE CROSSROADS. By Ezra Taft Benson (as told to Carlisle Bargeron). Cloth; xvi + 107 pages, 5½x8 inches. New York: The Devin-Adair Company. $2.50.

In this "agricultural testament of a man who learned about farming by farming and whom President Eisenhower considers one of the greatest Secretaries of Agriculture in the history of the country," Mr. Benson, who does not subscribe to the political concept that farmers are something to be cultivated—with generous financial "fertilization"—with a purpose of reaping a bumper crop of votes, discusses fully and frankly the present and future position of the American farmer and his relation to the rest of the national economy, to the federal government, and to the world.

When one has read the first chapter, "About Ezra Benson," he is ready to go along with him on such topics as "Self-reliance," "Farm versus city," "Farmer and the Government," "Stockpiling and Catastrophe," "Controls versus Initiative," "Soybean Prosperity—uncon'rolled," "Why Price and Acreage Controls Don't Work," "Farmers Make Their Own Adjustmen's," "The Paternalistic Road to Disaster," "How Liberty Is Lost," "Simple Arithmetic: Who Benefits from High Supports," "What the People Have to Do for Themselves," "Individual Action," and "New Markets." And he will learn a lot.

There is useful informa'ion for Americans of all groups in the glossary appended to Mr. Benson's telling of what he knows, thinks and believes. Acquaintance with the terminology of the federal farm policy will make most clear the import and the importance of his statement: —"The most important method of promoting the long-time welfare of farm people and the nation is the support of adequate programs of research and education in the production, processing, marketing, and utilization of farm products, and in problems of rural living."

ZINC OXIDE REDISCOVERED. By Harvey E. Brown. Cloth; 99 pages, 8½ x 11 inches. New York: The New Jersey Zinc Company. $3.00.

This volume presents the latest work in the zinc oxide field with respect to world-wide research. It does not deal with zinc oxide as a useful pigment in paints, but rather deals with zinc oxide as to its unique physical and chemical properties leading to its use in areas where these special features of the material make it particularly useful.

Part 1 of the book deals with the components of zinc oxide, the history of its manufacture, crystal structure, thermal properties, and optical properties. Part 2 deals with the solid state reactions of zinc oxide, together with its semiconductor phosphor, electroluminescent, thermoluminescent, candoluminescent, ferrite, catalytic, photoconductive, photovoltaic, and photochemical properties. Part 3 consists of illustrative applications, references, and index.

This book does not contain information of use to the paint or rubber industries.

Niobium Key

—Continued from page 5

susceptible to purification only through highly complex chemical processes.

Niobium is found in many areas but it is always found in the presence of other elements. This necessitates separation and refining by chemical means to secure usable amounts of pure metal.

In pure form, niobium is reportedly extremely ductile, unless the common gases, nitrogen, hydrogen or oxygen, are introduced. Kept reasonably free of these gases, however, its workability is claimed to be unusual.

duPont metallurgists report, for example, that a one-pound, three-quarter-inch ingot of niobium can be cold-rolled into foil a thousandth of an inch thick without annealing.

Alloying Improves Strength

Pure niobium oxidizes rapidly at high temperatures. But by alloying, it is claimed, both strength and oxidation resistance at these temperatures have been materially improved. Such materials are of major interest to designers and manufacturers of ultra-high-speed aircraft and gas turbine engines.

The reason for this interest is the fact that gas turbine engines are reaching the upper limits of operation based on the high-temperature properties of metals currently in use. This is roughly pegged at 1,650 degrees Fahrenheit.

Use of niobium alloys in such critical parts as turbine buckets—which operate at red heat—may lead to more efficient turbines capable of running at temperatures in the range of 2,000-2,200 degrees Fahrenheit.

Since the overall performance of these engines is geared to the temperatures at which they can be run, operation at higher temperature would result in greater thrust per unit of engine weight and increased thermodynamic efficiency per unit-weight of fuel.

Gas turbines are used today in jet and turboprop aircraft engines. Their use in railway locomotive and marine engines, in automobile engines, and in stationary power generators has been forecast.

In addition to its potential use in turbine buckets, niobium could also be used in jet engine burner tunnels, in skins for supersonic missiles, and in ram-jet tail pipes.

Peanut Prop Program Allows for Loan Pacts

Purchase and loan agreements will be available to individual peanut producers under the price support program for 1957-crop peanuts, Department of Agriculture announces.

Producers who sign a purchase agreement will not be obligated to deliver any of the commodity to the Commodity Credit Corporation, but during the specified delivery period they may deliver any amount of the quantity of peanuts specified in the purchase agreement.

To be eligible for delivery, the peanuts must have belonged to the producer at the time of harvest and remained in his possession or under his control until delivery to CCC.

Sputnik II

—Continued from page 4

must have been used to get such a great weight into outer space.

Dr. John P. Hagen, director of the United States satellite program, said that his best guess was that the same sort of thrust was used to launch Sputnik II as was used in firing the original satellite.

This reasoning was based on the fact that there was probably not much difference in the weight of the second moon from that of the final stage of the rocket that sent Sputnik I into an orbit, and then went into an orbit itself.

Other scientists giving little credence to the Russian claims of developing a new fuel were Frederick C. Durant, 3d, a former president of the American Rocket Society, and Dr. Guyford Stever, associate dean of the engineering school of Massachusetts Institute of Technology.

In the Soviet Union itself, a recent article in a scientific publication described an improved rocket fuel consisting of hydrocarbon compounds, alcohol and kerosene, with nitric acid and liquid oxygen. Scientists in the United States are not unacquainted with the possibilities of these fuels.

The Various Chemical Fuels

Among propellant systems considered by missile scientists here are the following: Hydrazine, furfural, ethyl alcohol, "JP-4" (high grade kerosene-gasoline mixture), lithium hydride, decaborane, tetraborane, diborane, beryllium hydride and hydrogen.

The list, arranged in order of increased amount of heat available with a given weight of propellant, consists of fuels that can be burned with oxygen. Some American rockets are known to be propelled by liquid oxygen and some hydrocarbon or other combustible material.

There are a few here who still contend that the Soviet Union has harnessed atomic energy for its spectacular flights into outer space.

One scientist last week saw an "astonishing' advance made by use of nuclear power—atomic fission or atomic fusion —to drive a rocket combination up into space.

When Sputnik I was launched, Dr. Jan Schilt, professor of astronomy at Columbia University, felt strongly that the Soviet Union had used atomic power then (OPD, 10/14/57).

While conceding that a chemical fuel could have been used, he pointed out that the mechanics of propelling such a huge payload into outer space would require nothing short of nuclear propulsion.

Backing up what Dr. Schilt had to say previously, another university physicist here said that many American scientists now believe that conventional chemical fuels—including the new hydrogen, lithium and boron compounds currently under study—do not provide enough gaseous ejection velocity for their weight to put such a heavy object so high up.

For either a fusion or a fission rocket, the heat of the reactor would be used to impart a velocity to a gas of atoms or molecules that would be fed into a reactor heart.

Catalin, French Firm

—Continued from page 4

in France in the production of organo-synthesis chemicals for the textile, agricultural, rubber, plastic, beverage, petroleum, cosmetic and pharmaceutical industries.

Harry Krehbiel, Catalin's president, says, "This is the third important step Catalin has taken recently to achieve international recognition and distribution of its products and to diversify even further its growing chemical division."

Last June, Catalin made a five-year contract with Adhesivos Resistol, S. A., of Mexico, for an exchange of technical information. Early in October, it completed a similar agreement with Cie Centrale Rousselot of Paris, for an exchange of information pertaining to the manufacture of solid one-stage and two-stage phenolic resins for adhesives, bonding, molding and foundry uses.

Roger Bellon Enterprises, formed in 1933, is composed of several French firms devoted to the production, merchandising and distribution of biological, galenic, pharmaceutical and veterinary products.

The various companies, employing over 2,000 people, make and sell their own end products as well as raw materials to both private companies and such divisions of the French government as the Departments of National Defense and Public Health as well as the Ministry of French Overseas Territory.

The Roger Bellon technical laboratories, staffed by about seventy-five scientists including medical doctors, doctors of science, veterinary surgeons, chemical engineers and chemists, are extensively developed for research and control of manufacturing processes.

The latest facilities are on hand for work in the fields of physics, chemistry biology, pharmacodynamics and analysis, according to Catalin.

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